Lectures

ON THE

RECENT ADVANCES OF OUR KNOWLEDGE IN THE DIAGNOSIS AND TREATMENT OF FUNCTIONAL NERVOUS AFFECTIONS.

By C. E. BROWN-SÉQUARD, M.D., F.R.S., &c.

LECTURE I.

GENERAL REMARKS ON THE CAUSES, DIAGNOSIS, AND TREATMENT OF FUNCTIONAL NERVOUS AFFECTIONS.

(*Continued from page 86.*)

V. *Mechanical and physical means of treatment.*—Although none of the means of this class are very new, most of them are so generally neglected, notwithstanding their great value, that I will say a few words about them to show in what way and in what cases they should be employed.

1st. *Means of increasing the quantity of blood in peripheric parts of the body.*—In all cases of diminution of size and density in muscles attacked with reflex paralysis, lead palsy, paralysis agitans, rheumatic paralysis, or idiopathic and reflex wasting palsy, as well as in cases of anæsthesia with diminished temperature of the skin, it is very useful to increase the quantity of blood in the paralysed, the trembling, or the anæsthetic parts. For this purpose the best mechanical and physical means are the following:—1. When the affected part is not extensive, dry cupping with the ordinary apparatus may be resorted to with advantage, particularly in cases of local hysterical anæsthesia, with great coldness of the skin. 2. Junod's boots to be applied every other day, either to a whole arm or to a whole lower limb, in cases in which there is no œdema.* 3. Leg or forearm baths at a temperature of 104° Fahr. 4. Covering the affected part with heated flannel or woollen stocking or sleeve. 5. Shampooing, without uncovering the part if the temperature of the room is low. 6. Frictions with a hot piece of flannel only in the direction of the venous current. 7. The affected part should be kept as much as possible in a lower position than the rest of the body.

2nd. *Means of diminishing the quantity of blood in the trunk and head without bleeding.*—It may be necessary to employ means of this kind in the comatose state existing sometimes in certain functional nervous affections, such as epilepsy, eclampsia, delirium tremens, or in nervous disorders due to uræmia, cholesteremia, or some other kind of toxæmia. Junod's boots may answer the purpose; but there is a simpler means, which has the great advantage of being everywhere at hand, and is superior to these cupping boots in this respect also, that it may be applied with hardly any interruption for hours and days if necessary. This means consists in the application, on the upper part of the four limbs, of ligatures tight enough to diminish considerably the return of blood to the heart, without preventing much the arrival of blood. By so doing, a pretty large amount of blood may be imprisoned in the limbs, and all the immediate benefits of bleeding can be obtained, while the bad effects it may have only exist during the time the ligatures are kept on the limbs. In making use of this means it is important to loosen the ligatures every fifteen or twenty minutes, and to apply them in a new place after each loosening. To avoid the danger of a sudden return of a great deal of blood, they must be removed successively at an interval of at least a few minutes between two succeeding removals.

3rd. *Means of increasing the amount of blood in the trunk and head.*—It may prove necessary, or at least useful, in some cases of syncope (in hysteria, in epilepsy, and in a few other neuroses due to anæmia, chlorosis, &c.) to increase the amount of blood in the trunk. In addition to the so-well-known means of laying the patient flat on his back, his head left on the level of his body, and his four limbs lifted up, so as to have the help of gravitation for the accumulation of blood in the trunk and head, it seems of real importance to press with the hand or with a tourniquet on the main arteries of the four limbs, near their place of issue from the trunk. Besides these means, it is of great importance to excite the heart to beat by frequently repeated pressure on the sternum and ribs (over the heart); as I have ascertained, on various species of animals, that when the movements of the heart have just ceased, in consequence of a reflex action from an irritation of the abdominal sympathetic nerve or of a direct irritation of the medulla oblongata or par vagum, a direct mechanical excitation will make it beat again.*

4th. *Other mechanical and physical means.*—I will not speak now of the pressure on the carotid arteries or on nerves, as these means are not simply mechanical. The same reason makes me postpone what I have to say of the application of ligatures round a limb or some other part in cases of an *aura epileptica* or *hysterica*, &c. I will now only say that when an attack of epilepsy, of eclampsia, &c., is followed by a comatose state or even a sleep with heavy breathing, it is of the greatest importance to place the head of the patient in such a position that the tongue, which is then nearly paralysed, will not fall on the larynx and cover its aperture.

VI. *Means of treatment through an irritation of the sensitive and other incident nerves.*—These means are of the utmost value; and the recent progress of our knowledge as regards their mode of action constitutes a large part of the advance of the therapeutics of neuroses in our time. These means act chiefly by a reflex action, most of them on the vaso-motor nerves, and some of them on the nutritive and secretory nerves. Many of them give a sensation of pain, while they are applied or afterwards; but most likely their principal mode of action is through the irritation of the non-sensitive incident nerves (excito-motor of bloodvessels, and excito-nutritive and secretory nerves). I will state briefly what are the most interesting points concerning the therapeutic influence of these means.

1st. *Ligatures, pinching, rubbing, and circular blisters.*—When I first began to make use of ligatures in epilepsy I had hardly any other than theoretical objections against the view that in that convulsive affection ligatures serve only to prevent the passage upwards of an irritation travelling from the periphery towards the nervous centres. I soon saw several cases similar to a few already known, in which the cause of the aura was clearly in the nervous centres, and in which, however, ligatures acted as marvellously in preventing attacks as in cases in which an aura had undoubtedly its cause in a peripheric part. When the extremely various sensations which accompany an aura,† like the aura itself, have their only cause in the nervous centres, as it was in the cases I have just mentioned, it is quite evident that there is nothing going from the periphery to the nervous centres, and as evident that ligatures in such cases must act by some other means than by preventing the passage of something. This first point being clearly established, I found that ligatures, in cases of an aura from a centric origin, acted with greater efficacy when they suddenly induced powerful irritation of the nerves of the skin than when they were applied gradually and slowly, either tightly or not. After having made this step, I ascertained that it was so even in cases of an aura starting distinctly from the periphery. I found afterwards that in both kinds of cases, pinching, pricking, striking, or rubbing the part which is objectively or only subjectively the place of origin of an aura may prevent a fit of epilepsy or of hysteria, or simply of local or general convulsions. I was led therefore to look upon ligatures in those cases as acting chiefly as a means of irritation of the nerves of the parts on which they are applied, irritation producing a favourable change in the nervous centres.‡ The

* In another lecture I will give some details on the use of this powerful means of increasing the amount of blood in a limb. I will only say now that I have ascertained by experiment on animals that vascular irritability acquires a notably greater degree in a limb dry cupped for eight or ten minutes by Junod's boot.

* There is a most powerful means of exciting the heart to beat in cases of partial syncope, which I do not mention in the text because it is not mechanical. It consists in stopping completely the breathing of the patient for one-half or two-thirds of a minute. The blood then becomes more charged with carbonic acid, and more exciting to the heart.

† I say, "accompany an aura," because I have found that the sensations which are miscalled *aura* are not at all essential, as they vary extremely, and may exist or be absent altogether, the aura, notwithstanding their absence, being as powerful as any *apparently felt aura* can be. These sensations, therefore, which are erroneously considered as constituting the aura, are merely accidental phenomena which accompany it.

‡ The influence of an external irritation in producing a favourable change in the nervous centres is beautifully illustrated in cases of myelitis existing in a small zone, in the upper or middle part of the dorsal region, leaving below it all or nearly all the dorso-lumbar enlargement of the spinal cord almost in a healthy condition. In four well-characterized cases of that kind that I have seen, one of them with Professors Trousseau and Nélaton, another in consultation with Dr. Verneuil, and a third, an hospital patient,

following results I have subsequently obtained:—1st. That it is not necessary to apply an irritation (by a ligature, pinching, &c.) on the very limb from which an aura seems to start, as the same means applied elsewhere may succeed; but the chance of success is much greater by the former than by the latter way. 2nd. That a constant or a frequent irritation (by a blister, an issue, a seton, the actual cautery, &c.) on the place from which an aura seems to start may not only prevent fits, but, by some change of nutrition locally (if the aura is really of peripheric origin) and in the nervous centres, may reduce or even destroy altogether the tendency to fits, and lead to a complete cure. 3rd. That, as a circular ligature may procure a temporary good effect, so a narrow *circular blister* applied all round a limb, a toe, or a finger, or a circular cauterization with a white-hot iron, may cure epilepsy, hysteria, neuralgia, &c., in cases with a distinct aura. 4th. That even in cases in which there is no known aura, felt or unfelt, ligatures, pinching, and other means of irritation may prevent fits when applied on persons expecting a fit. Before I pass to another subject I ought to say that for a long while a positive fact has been known—not generally, however—which shows that ligatures applied to the limbs when a fit of fever and ague is about to take place may prevent the fit. As malarial poison produces fever by a peculiar influence upon the spinal cord, so the success of ligatures against fever and ague is due to a favourable change in a nervous centre, induced by a peripheric irritation of incident nerves.

2nd. *Cold.*—Ice is the most powerful means we possess to produce a reflex contraction of bloodvessels. Before a positive demonstration was obtained on this point, it seemed already extremely probable from the following well-known facts: that ice applied on the abdomen or on the back, or in the vagina and rectum, often stops a hæmorrhage from the womb; that, applied to the head, it will do some good in cases of congestion or inflammation of the brain or its meninges, or in cases of symptomatic or idiopathic headache; that it may stop a hæmoptysis when applied to the chest—a hæmorrhage from the bowels, the stomach, or the kidneys, when applied to the abdomen or the loins; that it may be employed with marked benefit against an inflammation of the viscera or serous membranes of the chest and abdomen, and especially against metroperitonitis, as shown particularly by Kiwisch and Böhier; that, applied all along the spine, it may cure tetanus, and be useful against spinal meningitis.* These facts gave a great probability to the view that ice acts as an irritant of incident nerves, and through the influence of this irritation on the spinal cord or base of the brain produces a reflex contraction of bloodvessels; but, so far as I know, there was no positive fact establishing this peculiar influence on bloodvessels, until the experiments I made about fifteen years ago† with my friend Dr. Tholozan clearly showed this important influence of ice. We found that dipping one hand into water at freezing-point produces in the other hand considerable contraction of bloodvessels and a corresponding diminution of temperature. This fact, of which I shall have to speak again in another lecture, leaves hardly a doubt as regards the mode of action of ice in the cases in which it is daily employed with the view of producing a remote effect. Recently, Dr. Chapman has had the idea of applying ice to the spine, with the purpose of paralyzing the vaso-motor nerves of the limbs or of the head. He states that the application of ice to the lumbar region of the spine produces a dilatation of the bloodvessels of the lower extremities, and all the consequences of a greater afflux of blood; and that a similar application between the shoulders produces the effects of the section of the two cervical sympathetic nerves. Whether he be right or wrong in his explanations, he at any rate relates facts which deserve to attract the attention of the profession. We are not frequently enough successful in our treatment of neuroses to neglect means which, according to his statements, have cured so many cases of epilepsy or of other nervous affections. It is to be hoped, therefore, that physicians of large hospitals will give a fair trial to the means he proposes, and ascertain the real value of cold applications to the spine in the treatment of neuroses. Before dismissing this subject, I will mention that a patient of Mr. Ernest Hart has been cured of epilepsy and progressive atrophy of the optic nerve by his applying ice to the spine, and that the same patient had only derived a slight benefit from the use of the valerianate of atropia under my care.* This would be the place to speak of hydrotherapy, if I had time to treat of all the therapeutical means. I will only say that an important addition to the proofs of the reflex influence of cold water on bloodvessels has been obtained by Dr. L. Fleury, who, by careful measures, has ascertained that, after the application of a cold douche on the skin, a congested spleen or a congested liver will sometimes diminish in volume much more than had been stated by other practitioners. Several interesting facts lately observed by a talented young physician, Dr. Béni-Barde, give a confirmation to the view that the therapeutic influence of hydrotherapy is due to a reflex action on the internal organs from the excitation of the skin by cold water.

3rd. *Actual cautery and other applications of heat.*—Jobert de Lamballe, Valleix, and others have exaggerated the advantages of the so-called transcurrent cauterization against neuralgia; but there is no doubt that this means is one of the most valuable in that affection, and is very useful against other neuroses. I may say that it is not at all necessary to produce a burn that will give a great discharge. If the iron employed has a smooth surface; if, besides, it is applied only at white heat, and passed quickly over the skin with a gentle pressure, it hardly gives pain. The epidermis and a very thin layer of the skin dry up and fall off within two or three days, leaving a reddish mark, which disappears before very long. This means I have employed with great advantage in a case of angina pectoris, and in many cases of epilepsy and neuralgia, and with some benefit in cases of contracture, of torticollis, of paralysis agitans, &c. The application of heat in many other ways (by Mayor's hammer, for instance) is very useful in a great many cases of nervous affections. In a case of coma with convulsions, due to a complete arrest of the urinary secretion after an attack of renal hæmaturia, in 1851, Dr. Tholozan and myself, after twenty-four hours of unsuccessful treatment, decided to apply heat on the skin of the loins and sides of the abdomen. A large silver spoon was dipped into boiling water, and was applied on eight or ten places. To our surprise and delight, we soon found the respiration improving, and in less than a quarter of an hour the convulsions ceased, and the patient came to his senses and passed a little water. The return of the urinary secretion had saved him.† No doubt the irritation of the skin had acted by a reflex action on the secretory nerves of the kidneys, and produced the secretion of urine.

4th. *Alternative applications of cold and heat.*—Led by the well-known powerful influence of alternative immersions of newly-born children into cold and warm water in restoring respiration, I have often applied, with more or less good effect, cold and hot water to the spine, with a view of producing a contraction of bloodvessels of the spinal cord. Whether these vessels are already somewhat contracted, as is most likely the case in reflex paralysis or reflex anæsthesia, or dilated, as is often the case in hysterical paraplegia, some good may be obtained in these two opposite conditions from the use of cold and hot applications, owing to causes which I will explain in another lecture. I have found alternative applications of ice and hot poultices very useful against neuralgia.‡ Dr. Ramskill has obtained some benefit from alternative immersions of a paralysed limb into very cold and hot baths.

5th. *Cauterization of fauces and larynx.*—A man of some talent, who unfortunately allied eccentricity to a genuine love of his profession, Dr. Ducros, used to treat many nervous and other complaints by the application of ammonia to the fauces. More rational researches have shown that a cauterization of the fauces, and still better, of the mucous membrane of the larynx, is of the utmost value in the treatment of whooping-

seen by my colleagues, Dr. Ramskill and Dr. Hughlings Jackson, there were, as usual in such cases, extremely violent and frequent reflex tetanic spasms in the lower limbs. In every instance these spasms at once abated and quickly ceased when the big toe of either of the feet was seized and forcibly drawn down, flexed as much as the ligaments of the joints would allow. I think it would be well to try the same means in tetanus, and particularly traumatic tetanus.

* The above facts have led me to propose (Lectures on the Various Forms of Paralysis of the Lower Extremities, 1861, pp. 91, 92) the use of pounded ice, to be applied in bladders all along the spine in cases of hæmorrhage in the spinal canal. I have since then made a useful application of this mode of treatment in a case of that kind.

† See Journal de la Physiologie de l'Homme et des Animaux, vol. i., 1858, p. 497.

* It is as well to say now, what I will try to prove by and by, that the application of ice to the spine chiefly acts like any other irritation of the skin, but with more power, modifying remedially the nutrition of the nervous centres, and particularly of the base of the brain.

† A few years afterwards the patient, who was a physician, succeeded with me, by the same means, in saving the life of a patient who was attacked with cholera, aggravated by uræmic coma and convulsions.

‡ These alternative applications of ice (for ten minutes) and hot poultices (for an hour), which I long ago recommended as a means of preventing the formation of bedsores and sloughs on the nates and elsewhere in cases of myelitis, meningitis, or fracture or dislocation of the spine, have now been so often employed successfully by myself and many other medical men, that I think I may safely say that these morbid alterations of the skin might be always prevented by those simple means.

cough, of several other spasmodic affections of the larynx and the bronchial tubes, of diphtheritic or hysterical paralysis of the larynx and pharynx, and in that form of epilepsy which is due to laryngismus.

6th. *Other kinds of irritation of sensitive or incident nerves.*—Many applications on the skin have a great power in changing the state of nutrition of the nervous centres or of the peripheric parts attacked with pain, spasm, &c. Of the means of treatment of this kind that have recently been proposed, I will only point out the use of nitrate of silver and of sulphuric acid on the skin in cases of neuralgia; the use of the continuous galvanic current, as proposed by Remak, in many nervous affections, and the singular, but certainly sometimes successful application of sulphuric ether in the external ear against functional deafness.

VII. *Complex modes of treatment, combining the two processes of irritation of nerves and a modification of the blood.*—Amongst the relatively new modes of treatment belonging to this class I will briefly mention a few, and speak at some length of only one. Tonic and exciting medicated baths, such, for instance, as a bath with sulphuret of potassium, or a bath with arseniate of soda, have been found very useful in chorea, and in most of the nervous affections due to anæmia, chlorosis, and rheumatism.* Turkish and Russian baths have proved useful in reflex paralysis and in neuroses due to gout and rheumatism. Another mode of treatment which deserves more than a cursory mention may become before long of very great importance. Although its influence on the blood (at least in a direct way) is probably *nil*, I will speak of it now as it was at first considered as acting only through some change in the circulation of blood in the head. This mode of treatment, which has only given yet but a small part of the good effects it can give, consists in a pressure on the par vagum and the cervical sympathetic nerve. It has been employed with the idea of diminishing the quantity of blood in the head by pressure on the carotid arteries; and it has proved useful in cases of mania, of headache, of vertigo, and particularly as a means of shortening a fit of epilepsy. Dr. Alex. Fleming has also made a successful use of that means to induce sleep. We owe to Dr. A. C. Pinel and to that most ingenious and accurate physiologist, Dr. Augustus Waller, the demonstration that the principal effect of an attempted pressure on the carotid artery is to irritate and put in play the par vagum, and diminish, consequently, the movements of the heart. My own researches show that the cervical sympathetic nerve also is excited, as proved chiefly by the dilatation of the pupils. If the pressure is considerable, the effects of a section or a paralysis of the two nerves are observed.† I will return to this subject in the lectures on Vertigo and Epilepsy, adding only now that we have in that compression of the cervical sympathetic a most valuable means against the *petit-mal*.

(To be concluded.)

* Four ounces of sulphuret of potassium are used for a bath. As regards the arseniate of soda, Dr. Noël Gadeau de Mussy, who has often employed it lately, recommends its being used with subcarbonate of soda: 100 grammes (3½ ounces) of this last remedy, with 1 gramme (1 scruple) of the arseniate, for a bath.

† In performing this operation, it is important to avoid pressure on the veins of the neck or on the trachea, which had most likely been pressed upon in the cases described in the following extract from a work of Jacobi. There is "a feeling of burning heat, which spreads suddenly over the head and neck down to the chest; or, when the compression was merely upon one side, over the corresponding side of the head and neck, with a feeling of heat within the head in many cases. The face becomes darker, with, frequently, the production of a vivid colour, an extremely painful sensation of compression of the chest, a feeling of tension, weight and pain in the head, giddiness, staggering, sleepiness; actual sudden sleep, with stertorous breathing; in many, incipient syncope, with uncertainty in the use of the lower extremities, stumbling, and in some cases they suddenly fall down with entire insensibility, but speedily recover."—(JACOBI "On the Nature and Treatment of Insanity," in *Brit. and For. Med. Rev.*, vol. xxii. 1846, p. 14.)

ODONTOLOGICAL SOCIETY.—The Annual General Meeting of this Society was held on the 8th inst. at 32, Soho-square, the President (Mr. Thomas Rogers) in the chair. Notice had been given by the Council of proposed alterations in the laws and bye-laws of the Society; a long discussion took place, and the matter was referred back to the Council for reconsideration. The following gentlemen were elected as officers of the Society for the ensuing year:—President: W. A. N. Catlin, Esq. Treasurer: Arnold Rogers, Esq. Librarian: J. B. Fletcher, Esq. Honorary Secretaries: J. Drew, Esq. (ordinary); Thomas Underwood, Esq. (for foreign correspondence).

REMARKS ON THE BOVINE PESTILENCE.

By JAMES COPLAND, M.D., F.R.S., &c.

THIS pestilence, lately introduced into Great Britain, has been, and still is, advancing, as may have been expected from our knowledge of its progress in former ages, especially in continental countries. Judging from the history of it in these countries in the seventeenth and eighteenth centuries, and in what has elapsed of this century, it has been, up to the occurrence of the present epidemic, much more prevalent abroad than in Great Britain. The number of writers on it in the eighteenth century alone amount to more than 350, of whom not above 20 have been in England, but amongst these the respected names of Brocklesby and Layard are to be found. The great majority of experienced continental writers on the malady have considered it peculiar or *specific*, and not as being identical with any human disease, although a few have viewed it as being closely allied to the plague; and a very few only as being communicable to man, of which occurrence they have adduced instances. The years in which this pestilence appears to have been most prevalent in Europe were 1745, 1775, and 1793. The great majority of writers up to the present time have considered the malady as directly contagious, or by contact; as indirectly contagious, or by fomites, &c., and by the atmosphere; and as transmissible to a considerable distance by the wind, as very recently shown by an able communication made to the Edinburgh Meteorological Society.

As to the *nature* of this bovine pestilence, the opinion of the best writers is, that it is peculiar or *specific*. Yet it presents points of resemblance to some human maladies when they appear in a malignant or concentrated form. The rapid depression of vital force; the contamination of the blood and secretions; the loss of the vital cohesion of the soft tissues; the discharges from the throat, mouth, and nostrils; the affection of the integuments; congestion of the lungs, &c., ally it more or less palpably with malignant scarlet fever, with malignant infections or continued fevers, with diphtheria, with plague, with epidemic erysipelas, with small-pox, and with the effects of some other malignant animal poisons: from each of which, however, it presents certain points of difference. That it is of a *specific* nature and form is evinced by the fact that the morbid or infectious emanation from the affected always produces a malady identical in type and character with that from which the emanation proceeded. Of the several maladies resembling, or allied to, bovine pestilence, scarlatina maligna appears to be the most prominent or nearest allied. Yet if the resemblance were very intimate, or if both maladies were identical, it would be reasonable to expect its extension in some instances, in its specific form, from the diseased animal to the human species.

The number of writers on the *prevention* and medical treatment of bovine pestilence in the several continental countries, compared with the few which have appeared in this, indicate the more frequent prevalence of the malady in those countries than in this. The chief, and indeed the only reliable means of prevention are perfect seclusion and quarantine. The insular protection afforded by this country has rendered the appearance of the malady in it much less frequent than in other countries; but the importation of foreign cattle in steam and sailing vessels no longer admits of complete protection unless a strict examination of the cattle about to be imported be faithfully executed. The fact also should be kept in mind, that the infection may be conveyed to a considerable distance from the diseased animal, or from indirect (fomites) sources of infection, by the contaminated atmosphere; and even to a much greater, although an undetermined, distance by winds and currents of air of greater or less velocity.

Various medicinal means of prevention have been advised by numerous writers on this pestilence in continental countries. They have chiefly consisted of aromatics, stimulants, and tonic substances, and of fumigations of sulphurous and acid vapours. These, however, are apparently less efficacious than the fumes of creasote, tar, turpentine, &c. The addition of common salt to the food of cattle was recommended by Haartmann in the "Transactions of the Royal Academy of Sciences of Sweden;" and dilute muriatic acid was suggested by Reichsanreiger in 1801 to be given internally. This writer

also recommended the inoculation of cattle with the variola vaccinia as a prevention of the pestilence. The inoculation of healthy animals exposed to infection with the secretion from the affected surface of the diseased was advised, in the last quarter of the eighteenth century, by Bergius, Camper, Murray, Layard, and several other authorities; but Havemann, Schroeter, and others contended, from a knowledge of the results, that the practice was inefficacious.

G. R. Franck, in 1802, advised the internal exhibition of sulphur in a decoction of oak-bark as a preservative against the pestilence; but sulphur, conjoined with various aromatics and tonics, had previously been recommended by several writers in the *Salzburg Medical and Chirurgical Journal* and in other German medical journals. Wagner, in 1745, had prescribed the sulphate of zinc with the same intention. I may further state that camphor, carbonate of ammonia, assafœtida, with or without nitre, and the muriate of ammonia in the decoction of oak-bark have been severally exhibited as a prophylactic in Germany; but with what success it is very difficult to determine, probably with little or none, those advising them ascribing to them greater virtues than they actually possessed.

In the number of THE LANCET for December 2nd, 1865, p. 632, I suggested a *treatment* of the pestilence, which, judging from its effects in cases of pestilence and malignant fevers in the human subject, I believed to be deserving of a trial in this malady; but it seems to have attracted little attention, and it certainly has not received, as far as I know, a satisfactory trial. I need not again describe the means which I have suggested at the place to which I have just now referred.

Old Burlington-street, Feb. 1st, 1866.

ON HOMŒOPATHY.

By EDWARD MERYON, M.D., F.R.C.P.,

FORMERLY LECTURER ON COMPARATIVE ANATOMY AT ST. THOMAS'S HOSPITAL.

To arrive at a correct estimate of the intrinsic value of homœopathy as a system, it must be viewed, not from the bench of authoritative denunciation, but from that of critical investigation, theoretically and practically. Hahnemann placed himself on a pedestal at once; and he was qualified, partly by nature, in the possession of a fertile imagination, and partly by an extensive and serious course of study. It behoves us to inquire if the erudition which he bestowed was directed by a sound and logical spirit; if the rectitude of his judgment was not warped by the ardour of his zeal; and if his desire to convince did not lead him to a disregard and sacrifice of truth. He certainly acquired a position which to many may seem enviable, and has secured the assent and confidence of numerous followers; but it remains yet to be found whether he has succeeded in achieving a lasting authority.

Born at Meissen, in Saxony, in 1755, he was duly educated for the medical profession, and early in life devoted himself to the study of its literature. So far his pursuits were favourable to his subsequent career. He appears, however, to have been greatly attached to the theory of medicine, and poured out his aspirations for "some great principle, as a rule of practice, by which he could in all cases guide his course." In 1790, whilst occupied in translating Cullen's Materia Medica into German, he took a dose of cinchona bark—being at the time in perfect health,—and a fit of rigor, followed by fever, ensued. From this circumstance the idea of a perfect theory of medicine burst upon him—an idea that the efficacy of medicines in relieving disease might depend on their power of producing the very symptoms which the disease itself produces. Guided by such a notion, he proceeded to note down the immediate effects or sensations induced by medicines on the healthy body, and arrived at the conclusion which he had anticipated—namely, "that medicines at all times and under every circumstance work upon every living individual, and excite in him symptoms peculiar to each medicine; and that the influence of each in relieving disease depends on its power of causing the very symptoms which the disease itself produces." Hence he enunciated a system which he designated Homœopathy, and he embodied the leading dogma in the term "Similia similibus curantur." It may be incidentally observed, however, that it lacks the charm of novelty; for it was enunciated in the very words above quoted by Gregory the Great in the sixth century. Proceeding in his investigations, he arrived at the conclusion that the medicinal virtues of medicines are developed and enhanced by trituration and minute subdivision; and that many substances which are usually regarded as inert, such as charcoal for instance, acquire power by virtue of the powdering, levigation, or subdivision to which they are exposed.

Having determined thus much in relation to remedial agents, Hahnemann next turned his thoughts to the nature of disease, and enunciated the dogma that "all diseases have an immaterial cause, the origin of which is of a dynamic nature, and that they can only be destroyed by dynamic power." Hahnemann's words are—"The old school regards the solids and fluids which have become changed by disease as exciting causes of disorder: hence the practice of evacuating bile; hence vomits, purges, &c., are prescribed; but in vain: *for the evil has an immaterial cause, whose origin is dynamic; and it can only be destroyed by dynamic power.*" Herein we find an evident recurrence to the old Platonic theory of the existence of an immaterial active principle, which Athenæus of Attilia had revived in the time of Christ, and to which he gave the name of dynamic power, instead of pneuma or spirit, as it was called before.

"Similia similibus curantur" is the fundamental theory of the homœopathic doctrine.

Morbific but immaterial agents and medicines are the causes of disease: such is the foundation of homœopathic practice.

Reverting, then, to what has been incidentally mentioned, it will be seen that there are four dogmas which admit of separate investigation; and as they form the entire system of homœopathy, I propose to examine that system under the four following propositions:—

1. That medicines have the inherent, unconditional, and absolute power of exciting disease.
2. That the pathogenetic effects of medicines are developed and infinitely increased by trituration and subdivision.
3. That the nature of disease is dynamic and immaterial.
4. That the curative power of medicines is founded upon the property which they possess of creating symptoms similar to those of the disease itself: in other words, "Similia similibus curantur."

Homœopathy not only ignores, but absolutely denounces, the whole system of orthodox medicine; and, in consequence of assuming this position of defiance, it has met with many rude reprisals. It is not, however, in such a spirit that this question should be considered; for it may freely be admitted that if the "old school of Medicine" (as Hahnemann was pleased to call it) did not come up to his idea of truth, it was perfectly permissible to cast it off, and to offer what he conceived to be truth in exchange for error. Nor was he the less entitled to throw doubt on the old doctrine merely because, on account of its antiquity, it was supposed to be founded on scientific principles.

I would venture to suggest, however, that the apostacy of an unsuccessful practitioner (which Hahnemann was in his early days) may fairly be regarded with some degree of suspicion, and that the theory which he propounded is not more likely to be true because it is *quasi* new, than one which has been judged of and accepted by the learned for many centuries.

Now, with respect to the first dogma—*that medicines have the inherent power of exciting disease*,—it is unquestionably true; but it is not new. Arsenic will produce inflammation and ulceration of the stomach; sulphate of copper will produce similar effects on the small intestines; phosphorus will produce inflammation of the muscular coat of the stomach; bichloride of mercury, or corrosive sublimate, will produce inflammation in the kidneys; and, in many other instances, medicines are known to produce specific morbid actions. But the gratuitous assertion of Hahnemann that "all medicines have an inherent, unconditional, and absolute power of exciting one specific and invariable sequence of symptoms," involves the embarrassing obligation of a direct contradiction. The effects of medicines are either immediate and direct, or secondary and consecutive.

The first or immediate follow, more or less promptly, and often in a determinate order, the administration of a medicine, and are those only with which homœopathy concerns itself; whereas the secondary, which are the most important and most permanent, are contingent on, and in conformity with, the morbid changes which organs have sustained, and, therefore, not unconditional. But, irrespective of the modifications which disease may induce, the practical physician knows too well, and often to his cost, that one source of uncertainty exists in every individual; and that is, the precise temperament or idiosyncrasy, which affects his judgment and leaves him constantly beset with probabilities and doubts.

With respect to the second dogma, *that the pathogenetic effects of medicines are developed and indefinitely increased by trituration and subdivision*, it is undoubtedly true that mechanical subdivision does promote the action of medicines by reducing each individual atom to a condition susceptible of being acted on and absorbed by the stomach and intestines, and so far the morbid effects are developed; but that they are indefinitely increased by trituration is inconsistent with reason and disproved by impartial observation. But it is a remarkable fact that there are many hundreds of men, who have been trained in our universities, who regard as true principles which defy alike all experience and sound common sense. There are, in fact, men who believe that the effects of medicines may be increased to such potency that the billionth part of a grain of such inert matter as common charcoal can be made to produce manifest effect.

This proposition has encountered more ridicule than any other which Hahnemann promulgated, because of the extreme unlikelihood that so attenuated a dose as even the third dilution of a grain, which reduces it to the millionth part of a grain, can have any notable effect, even when arsenic, atropia, or aconitine is concerned; but when the sixth dilution is practised, and each grain divided into a billionth part, so that a single grain, say of charcoal, may be participated in by every individual on the surface of the globe, and in a dose adequate to relieve the complaints which follow intemperance, the absurdity carries with it its own refutation.

Hahnemann advanced a plausible theory for what he was constrained to practise. In the employment of doses which were said to produce dynamic and immaterial forces, he gave, in reality, what was absolutely inert. And yet the only evidence we have of an art of healing at all is accorded to this system of infinitesimal doses, for patients have affirmed that their sufferings have been palliated or removed by it; and the criticism of the orthodox physician, that the incidental feature of a severe dietetic regimen cures, is a reproach to him, seeing that he may use it as well as the homœopathist.

Having watched the progress of disease under the treatment on which I am commenting, I have more than once felt the truth of Dr. Cullen's remark, that "in physic there are more false facts than false theories." We have the testimony of Mr. Mill that "a fact may have been asserted by a hundred witnesses; but there are many exceptions to the universality of the generalization that what a hundred witnesses affirm is true. We may seem to ourselves to have actually seen the fact; but that we really see what we think we see is by no means a universal truth."

If the third proposition, which we have yet to consider, be admitted—namely, that diseases are merely dynamic, immaterial disturbances, there may be no absurdity in the supposition that infinitesimal doses of medicine, endowed with the like dynamic immaterial forces, might neutralize, and so cure them. But that the dogma is a fallacy is beyond doubt; and also that the source of the error is in the imagination, the influence of which in the production and cure of disease, as we have abundant instances to show, is incalculably great. In matters open to universal observation, as Mr. Mill observes, "a general proposition, which has not the smallest vestige of truth, is received as the result of experience," just as the negroes, among whom coral is worn as an amulet, affirm that its colour is always affected by the health of the wearer, it becoming paler in disease. There is little to be got by following out the fiction into all its possible consequences. We will therefore pass on to the third dogma—

That the nature of disease is dynamic and immaterial. Before disputing this proposition, it may not be amiss again to quote Mr. Mill's "System of Logic," wherein he remarks that "In the department of inquiry relating to the more complex phenomena of nature, and especially those of which the subject is man, the diversity of opinions still prevalent among instructed persons, and the equal confidence with which those of the most contrary ways of thinking cling to their respective tenets, are proofs not only that right modes of philosophizing are not yet generally adopted on those subjects, but that wrong ones are; that inquirers have not only in general missed the truth, but have often embraced error; that even the most cultivated portion of our species have not yet learned to abstain from drawing conclusions for which the evidence is insufficient." In his argument on the spiritual nature of disease, Hahnemann adopted a proposition without testing it by an adequate method of induction. It is true that the state of medical knowledge was so defective towards the close of the last century that it implies no censure on the physicians of the period to say their training was defective also. The imperfection of chemistry was seen and felt by them; and because it neither satisfied their ideas of truth nor enabled them to test what was true, they abandoned the humoral pathology altogether. Because a *materies morbi* never had been detected in the blood, Hahnemann inferred that it never could be, and so jumped to the conclusion of the immaterial nature of disease. The assumption was grounded on the usual error of supposing that the future must necessarily run in the groove of the past. And this accorded with the bias of his wishes; for, having conceived a plausible hypothesis, he gave the full measure of his attention to the evidence which seemed favourable to the desired conclusion, and none at all to that which seemed unfavourable. Had his data been right, his conclusion might have been right also; but reasoning on wrong data, the principle which he founded on them was a fallacious one.

"Diseases," says he in his Organon, "are not and cannot be mechanical or chemical changes of the material substance of the body, and do not depend on any material morbific principle; but are solely spiritual and dynamic changes of the animal economy. ..... The immediate essence of the internal and concealed changes is quite undiscoverable, invisible, and impenetrable. ..... What nosologist has ever seen one of those morbid principles of which he speaks with so much confidence, and upon which he presumes to found a plan of medical treatment? Who has ever been able to exhibit to the view the principle of gout or the virus of scrofula?"

When this was written, orthodox medicine was not in a condition to accept the implied challenge; but, thanks to modern chemistry (although far from giving us that assistance which we have reason to expect from it), the existence of a *materies morbi* has now been demonstrated; and to Dr. Garrod is due the honour of having shown, in 1848, what was previously suspected, that the blood in gout contains uric acid in the form of urate of ammonia immediately before and during the attack. And the sequence of events is physical, natural, and logical. The specific poison of the blood is transferred to and deposited about the cartilages and ligaments of joints, and there sets up local inflammation. The action is a physiological action as to the blood, for thus the *materies morbi* is carried off from it; but it is pathological as to the tissues about the joints, for the urate of soda is deposited in and about them, and there it may remain for a long time, perhaps for life. With regard to the virus of scrofula, as Hahnemann has called it, Rokitanski has clearly shown, in his chapter on Blood-diseases, how completely a blood-disease it is; and the local inflammations which it engenders are simply depuratory efforts of nature. Mr. Nourse has demonstrated an impure or pathological condition of the blood in lepra, and the gradual restoration to its healthy state when the blotches of the disease are fully developed. In other words, a *materies morbi* excites a preternatural formation of cuticular cells, of which the leprous blotches are the manifestation, and thus the poison in the blood is eliminated. As in gout, the action is a physiological action as regards the blood, but a pathological action as regards the tissues into which the blood-poison is transferred. And the same order of events, I will venture to affirm, characterizes every disease. The blood is rendered impure from some cause or other, and the impurity is got rid of by a process which, when completed, leaves the blood pure, whatever may be the result to the patient.

In epidemic or zymotic diseases, the existence of a *materies morbi* is very manifest. It is impossible to read any portion of the Appendix to the "Report of the Committee for Scientific Inquiries in relation to the Cholera Epidemic of 1854," without an absolute conviction that a poison was absorbed into the blood, where it acted like leaven, and changed the property of the whole mass; and so developed disease in such constitutions as were predisposed to a morbid condition, notwithstanding that the amount of oxygen and nitrogen respectively was in its normal and healthy proportion. Illustrations are given in the above Report of the air of cholera wards and cholera districts, as well as of water procured from cisterns in places where cholera prevailed; from which it is evident that a large quantity of organic matter existed in both, and that both were probable sources of disease by changing the quality of the blood (as Dr. Ainsley has shown that the blood is changed) at a very early period of the disease, so early, indeed, that it has not had time to be secondarily affected by the outpouring of morbid secretions. And this is rendered the more certain when considered in connexion with cholera sicca, in which there is no outpouring of secretion, no preternatural production of mucous cells from the mucous surface of the stomach and bowels—cases, in fact, in which the blood does not free itself from the poison it imbibes; and it is pre-

cisely in these cases, wherein the blood-poison is retained, that the disease is the most rapidly fatal.

But Hahnemann repudiated the doctrine of ferments, and denounced as absurd the idea that minute and contagious substances can be absorbed and enter into our blood. The microscope, however, has revealed to us the yeast plant since his time; and that minute substances can, and do, enter into our blood is proved by the propagation of these zymotic diseases.

The influence of the atmospheric air in diffusing these infectious particles may be readily appreciated when it is understood that the lungs are constantly receiving, on an average, twenty cubic inches of air at each inspiration, or about four hundred cubic inches per minute, during which time as much as 150 ounces of blood are propelled through the lungs (366 cubic feet, or 36 hogsheads, of air, and 13,488 pounds, or 24 hogsheads of blood, per diem); and that the blood, as it circulates through these organs, has in itself no power of selection, but absorbs into itself poisons, if they happen to be present in the atmosphere.

Again, Hahnemann has stated in his "Organon," that "the cause of disease cannot possibly be material; since the least foreign substance introduced into the bloodvessels, however mild it might appear to us, is suddenly repulsed by the vital power, as a poison; or, where this does not take place, death ensues." Now, if his dogma be true, we may fairly assume the universality of its application; whereas it has been shown in many instances that substances, foreign to healthy blood, *do* find their way into the bloodvessels; and although chemistry has not yet answered our requirements to prove the same in all cases of disease, yet it is a circumstance of happy augury for the doctrine of a *materies morbi*, that it has a strong foundation in the conviction of every physiologist of any note who has ever committed his thoughts to paper.

Immaterial, dynamic agencies are the practical data of homœopathy, and condense, in the fewest possible words, the greatest amount of false doctrine; yet the time when Hahnemann lived was singularly favourable for the propagation of such a theory; for, as Dr. Wm. Gairdner has said, it was evolved in the natural course of things from the Sangrado school before it, "just as the curmudgeon of a father produces a spendthrift of a son, as the Puritans produced Charles II., or as the Grande Monarque produced the French revolution."

(To be concluded.)

ON ANÆSTHESIA BY MIXED VAPOURS.

BY ROBERT ELLIS, ESQ.,

OBSTETRIC SURGEON TO THE CHELSEA AND BELGRAVE DISPENSARY.

IN common with a majority of my professional brethren I share a feeling of insecurity, not to say dissatisfaction, in the use of unmixed chloroform for the induction of anæsthesia. I think probably few are in the habit of exhibiting chloroform, as it is now administered, without a sense of doubt as to the manner in which it will take effect on the person operated upon. The risk is, of course, small; all statistics go to exhibit that important and reassuring fact, but it exists notwithstanding, and I believe is due in great measure to the use of this anæsthetic agent pure and simple. Death by spasm and death by paralysis of the heart may probably be set down as the principal causes of a fatal issue arising out of the use of undiluted chloroform. Against other causes of death in anæsthesia, such as suffocation or coma, we can take precautions, and they may be successful; but against these two we have only a limited power to contend, so long as we continue to employ this powerful agent alone.

While engaged in obstetric practice it has long occurred to me how great would be the advantage of possessing a substance safe in the use, and at the same time capable of producing insensibility to pain. Such an agent is yet to be discovered. But I think I have found a method by which the same result may be obtained by a combination, in a certain manner, of those substances with which we are already familiar. Reflecting on the commoner causes of fatal chloroform accidents, the conviction is impressed on me that we commence our anæsthetic induction with the wrong agency. Chloroform, however diluted, is unsuitable for the *early stages* of inhalation, and it is in these especially—as, *e. g.*, in the recent fatal accident at St. Mary's—that fatal results have been most frequent. At this period the emotional causes of danger are most active, the resistance greatest, and the danger also greatest. When I have heard of a patient being rendered quite insensible in three minutes it has always appeared to me—considering what must happen before insensibility can occur—that that particular patient has had a narrow escape. That all the natural emotion felt in submitting to an operation, with all its physical results, should be overwhelmed in this way, and the patient drowned in chloroform vapour in so rapid a manner, is in my opinion most unjustifiable and hazardous in no ordinary degree. But even when judiciously administered, chloroform, in my judgment, is the wrong thing to begin with. Its physiological action as a stimulant is brief, while the narcosis which follows is prolonged. Also, notwithstanding many assertions to the contrary, I think there is evidence to prove that occasionally chloroform vapour acts as a depressant from the first. What it seems to me we require, therefore, is to commence the anæsthetic operation with some of those substances which will give a gentle stimulus to the patient, sustaining the heart-power, tranquillizing the emotional condition, and thus gradually introducing to the stage of first partial, and then complete insensibility. In the method I would now introduce, this is effected by a means so simple and secure, that I have good hope it may commend itself to the judgment of many of our profession.

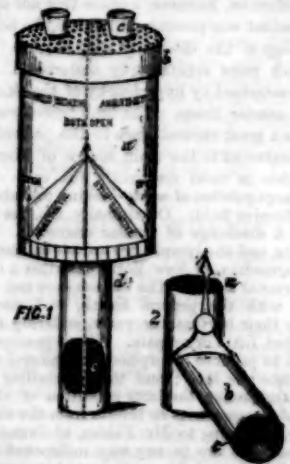
I take a drachm of *pure and strong alcohol*, sp. gr. 810 to 815, and pour it into one part of the instrument described below; this will last for four or five minutes. Into another division I pour a drachm of *pure ether*, sp. gr. 725, which lasts, perhaps, a couple of minutes; and I keep supplying this in small quantities as required. The patient begins to inhale, and receives into his lungs a mixed vapour of alcohol and ether, the evaporating surfaces being so adjusted as to keep a tolerable equilibrium between these two ingredients. By the simple act of rotating the apparatus, the quantity inhaled is increased, and is measured off on a scale to which the index points. The operator thus sees at a glance what amount is passing into the lungs, and adjusts it to the requirements of the patient. There is no coughing, or struggling, or resistance at this stage. Very gradually the pulse begins to rise, the surface becomes warm, (it is often cold from mere fright,) and the patient comes under the full influence of the mixed vapours; this I have called the stimulo-sedative stage of the operation. *Then*, when the heart and the nervous system have fully experienced the power of this excitant, a little turn further brings in the chloroform vapour, by such gentle gradations that the patient passes insensibly from the milder influence of the one agent into the anæsthetic power of the other; and by still further rotating the instrument, he is made to breathe only chloroform vapour just at the time when he is ready for the further proceeding of the surgeon. I think that in this method of inducing anæsthesia are combined the conditions of the greatest security with those of complete abolition of pain. I do not, indeed, make any kind of claim to novelty in the use of substances so familiar. I would only urge upon my professional brethren to avail themselves of the principle which I here seek to bring before them, so simple in its nature that it has probably occurred to many of them before this. I would also help those who wish to put it, as I have done, into actual practice, by describing the instrument I have made, and used with success, and an engraving of which is appended. I may say in its favour, that it is really a *working* instrument, without complication of parts, easily understood, quickly cleansed, and not very difficult to manufacture, my own having been made by myself out of a few bits of brass tubing, and then electro-plated.

For prolonged anæsthesia, as in obstetric practice, I think this apparatus admirably adapted. After a partial anæsthetic effect is produced by the mixed vapours, it is then easy to turn on a little more chloroform with each wave of uterine effort, and to turn it off to the safer vapour back again as the "pain" subsides. By this means we obtain all the advantages claimed by the Chloroform Committee for their anæsthetic mixtures, with the additional one of having the potent agent most completely under our control. So far as I am able to judge, the use of the mixed vapour is followed by much less depression than sometimes ensues after chloroform. It has also this advantage, that, whereas the use of chloroform alone (probably from its sweet, sickly odour) often leaves behind on the mind of the patient an excessive repugnance to the future use, or even the smell, of this substance, the same effect will not follow the employment of the vapours here recommended. In actual practice, I find it a slight good to dissolve a small quantity of some aromatic substances in the alcohol or ether,

and none better can be had than the aromatics used in sal volatile—namely, the oil of lemons and the volatile oil of nutmegs. It is useful also to colour the fluids slightly, so that they may be at once recognised, and mistakes for chloroform prevented. But I must very carefully recommend the operator to make sure that he is using *pure absolute* ether and *absolute* alcohol, perfectly free from the abominable contamination of methyl and its compounds. By care in this respect he will secure constant uniformity in his operations, and avoid the ill effects of those adulterations to which alcohol and ether are too subject. It is also important to observe that the ether and alcohol are really absolute. For this purpose the ether should be washed in distilled water, and then drawn off by a water-bath. The strongest commercial alcohol should also be procured and redistilled from chloride of calcium, drawing off three-fourths of the amount held by the still. The advantages are these, that definite fluids of known strength are employed, the results of the use of which will always be comparable with each other, and the inhaler does not become charged with water or the heavier parts of the spirit. By proceeding thus, a highly stimulating, easily vaporisable, and a very agreeably smelling spirit is obtained—very different from the ether and alcohol of the shops.

The question will be asked as to the value of using these anæsthetics in a separate form, when all can be had combined in the mixtures so strongly recommended by the Chloroform Committee. The principal and most important advantages are these: that we thus isolate and have under our control a perfectly safe stimulant and mild anæsthetic, while in the same instrument we have at command a most valued and powerful agent for the abolition of pain. And these are capable of being so united and blended together in any desired quantities as to give us such control over the individual case operated on as that may seem to require. We are able to produce any degree of anæsthesia by this means, from the slight dreamy unconsciousness to the deepest coma; and by aid of the index we can at any moment observe what is the precise amount of either or of both agents which is being employed. Anæsthesia may, in fact, be procured more quickly than by any of the anæsthetic mixtures, and it may then be graduated to the varying condition of the individual—in the paroxysm of labour pain and in the interval of comparative freedom, in the division of skin and sensitive structures and in the dissection of less nerve-endowed parts. Another and most important advantage is, that whereas anæsthetic mixtures all vary in composition by prolonged employment, and clog the instrument with unevaporated heavy fluid, no such effect occurs in this method.

For the mouth-piece I employ Snow's, or any other with a similar valve arrangement. The part of my instrument which is peculiar is the receptacle for chloroform and the corresponding one for the alcohol and ether. This part consists of two separate pieces, an upper and a lower (Figs. 1 and 2); the



upper fitting as in a socket into the vertical part of the lower tube. The upper part consists of a tube (*a*) of a little more than two inches diameter, and is three in height. It is fitted with a perforated lid (*b*), at each side of which is a small funnel (*c*). This tube is divided through its whole length by a metal diaphragm (*e*), which also runs down into the smaller tube fitted into it at the bottom. The whole forms one compact piece from top to bottom, and enclosing two entirely distinct spaces, one of which is reserved for the chloroform, and the other for the alcohol and ether. These have no communication with each other, but have a common opening of an elliptical figure at the bottom (*e*) of the smaller tube. This smaller tube (*d*) is accurately fitted, so as to work easily round in the vertical piece of the other part (Fig. 2) of the instrument. In so doing it necessarily exposes, according to the direction in which the larger tube is turned, first one side of the opening (say that leading to the alcohol and ether compartment), and then the other, leading to the chloroform. It is thus seen that we can perfectly control the nature of the vapour allowed to pass into the other part of the instrument, according as we cause it to turn to the right or to the left.

The second part (Fig. 2) of my instrument forms the receptacle for the socket (*a*) of the first, and carries the vapour up to the mouth-piece. But in order thoroughly to mix the separate vapours before they are breathed, a piece (*c*) of perforated gilt metal is fixed inside the horizontal arm (*b*) of this piece, and the diffusion thus caused effects a complete mixture before the vapours rise to the mouth. This same horizontal arm carries the index-finger, which points to the scale engraved at the upper part of the receptacle, and by its means (the scale having been carefully adjusted by experiment to the openings below) the quantity and the quality of the vapour are at once read off. What is told by this scale is represented below in the diagram. The rise of the lines exhibits the gradual increase of aperture. The graduated marks answer the double purpose of an index and a safeguard; for the index-finger fits into them with a spring, and holds the apparatus at the required degree until it be desirable to shift it farther. The instrument may thus be consigned to a nurse for a time, and the operator feel secure that no excess of chloroform can be accidentally administered.

I may add, that Mr. Blaise (of Messrs. Savigny's) has taken great interest in this instrument, and has produced an apparatus from my designs most complete in its parts, and, as I have publicly proved at one of our great hospitals, most successful in operation.

In actual practice the instrument is more simple and handy to use than could be believed from this account; and it will be no little pleasure to me if, in its adoption, life be saved while suffering is abolished.

Sloane-street, January, 1866.

MULBERRY CALCULUS OF LARGE SIZE REMOVED FROM THE FEMALE BLADDER BY LITHOTRITY.

GOOD RECOVERY.

BY CHRISTOPHER HEATH, ESQ., F.R.C.S.,
ASSISTANT-SURGEON TO THE WESTMINSTER HOSPITAL.

THE occurrence of calculus in the female bladder is rare as compared with the male; and the existence of a *mulberry* calculus in the female is so uncommon as to lead me to record the following case of the kind. Most surgeons are agreed as to the propriety of applying lithotrity to calculus in the female when the condition of the urinary organs and the nature and size of the calculus do not forbid the operation.

IN THE LANCET for October 11th, 1862, is a series of three cases of stone in the female, occurring in the practice of Sir William Fergusson, which is very instructive, since each case serves to illustrate different modes of treatment, and two of them, curiously, were instances of mulberry calculus. In one case a mulberry stone was extracted through an incision into the vagina, which was immediately closed with sutures, but unfortunately resulted in a vesico-vaginal fistula; in the second, the mulberry calculus was so excessively hard as to defy litho-

trity, and it was therefore extracted by dividing the urethra, with consequent slight incontinence; in the third case, a uric-acid stone was successfully crushed and brought away, with perfectly satisfactory results.

When first called to my patient, and upon understanding that she had been submitted to the operation of lithotrity two years previously, I anticipated finding only a small stone—some fragment of the former calculus which had escaped detection—and was therefore prepared to extract it by rapid dilatation of the urethra, as recommended by Mr. Bryant; but upon ascertaining the size of the stone this idea was necessarily abandoned, and I had immediate recourse to the operation of lithotrity.

On the 28th of October, 1865, I met Mr. Garnsey, of Stoke Newington, in consultation, to examine Miss M. O——, aged thirty-two, who was suffering from all the symptoms of return of stone, for which lithotrity had been performed two years previously. On the former occasion there had been but two performances of the operation, and she had passed small quantities of phosphatic stone after them. The operator considered her to be cured, but she had never been perfectly easy since, and latterly the bladder symptoms had been much aggravated.

Chloroform having been administered, I sounded the bladder, and immediately found a calculus. I therefore dilated the urethra with the forefinger insinuated along a director, and grasped the calculus with forceps, intending to extract it. This, however, I found immediately would be impossible without lacerating and distending the parts so as to lead almost inevitably to incontinence, and I therefore disengaged the forceps, and introduced a lithotrite. On grasping the stone in the lithotrite it measured an inch and a quarter. I crushed it three times, and then broke up some of the débris, which came away on washing out the bladder. Ordered to take fifteen minims of chlorodyne immediately, and to repeat at bedtime, and to have the bladder washed out with tepid water daily.

Nov. 2nd.—I found the patient very comfortable. She had passed a large quantity of débris, more, she thinks, than she did altogether after the former operations. These pieces are evidently the outer layers of a phosphatic calculus. She has kept to the sofa, and has suffered little inconvenience except on one occasion, when a fragment became fixed in the urethra, and was extracted by Mr. Garnsey. I introduced the lithotrite under chloroform, and caught the stone, which was still an inch in diameter. I crushed this twice, and then found an excessively hard nucleus, which required very considerable force to break it.

6th.—Has passed a large number of fragments since the last operation, and one of them very large and rough, consisting apparently of oxalate of lime coated with phosphates. Under chloroform I caught and broke twice a very large and hard fragment, and then with the lithotrite extracted three large rough pieces and two smaller ones, leaving the bladder apparently free of all large pieces. There was more difficulty on this occasion than before in keeping water in the bladder during the operation, and it was necessary to inject warm water three times.

9th.—Has passed only one fragment, and was in a good deal of pain this morning. Under chloroform I caught a large fragment, but it slipped from the lithotrite twice on attempting to extract it. I therefore withdrew the lithotrite, and caught the piece with small forceps, and extracted a very large and irregular fragment of oxalate of lime. Very careful examination with the bladder injected failed to detect any more stone.

22nd.—Visit delayed until to-day on account of menstruation. Has been very comfortable until the last day or two, when there has been some irritability of the bladder. No fragments have passed. On sounding carefully with the lithotrite, I detected a small fragment, which I extracted. On re-introducing the lithotrite, it came against a fragment near the neck of the bladder, which slipped from the instrument. The bladder was now forcibly emptied by the violent expulsive efforts of the patient, and, finding the piece just within the urethra, I extracted it with small forceps. It proved to be a good-sized piece of phosphatic matter. The bladder was now re-injected, and the most careful examination failed to detect any more fragments. The patient was ordered to take dilute nitro-muriatic acid in decoction of pareira for a month, and to have the bladder washed out occasionally.

Jan. 13th, 1866.—Mr. Garnsey writes that Miss O—— is quite free from pain of any kind, and is able to resume her ordinary habits. She has increased considerably in weight since the operation.

The weight of the collected fragments of stone was 245 grs., equal to 4 dr. 5 grs. The analysis was kindly made for me by Dr. Dupré, who found the larger pieces to consist of oxalate of lime, and the smaller external portion to be phosphate of lime and triple phosphate. No trace of uric acid was to be found.

Remarks.—The above cannot be considered as a case of recurrence of stone, for it is evident, from the nature of the calculus and the history of the case, that the former operation had not been successful in ridding the patient of more than the outer coating of the calculus. I was fortunate in being able to break the mulberry nucleus satisfactorily, though not without considerable effort; and the previous dilatation of the urethra facilitated the extraction of the fragments, so that the bladder was soon relieved of their irritating presence. It was necessary on each occasion of operating to inject warm water after the bladder had emptied itself in the progress of the operation, and on some occasions this had to be done more than once, but was readily accomplished with an india-rubber bottle and catheter, without materially impeding or lengthening the proceeding.

Cavendish-place, Jan. 1866.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

ELEPHANTIASIS OF THE LEFT LEG; LIGATURE OF THE EXTERNAL ILIAC ARTERY.

(Under the care of Mr. BRYANT.)

SEVERAL cases of that form of elephantiasis which has been styled Elephas pachydermia, Barbadoes leg, or the elephantiasis of the Arabs ("Holmes's Surgery," vol. iv., p. 755), have been lately under observation at some of the hospitals. The disease, as is well known, is rare in Europe, though common enough in the West Indies, the islands in the Pacific Ocean, and Cochin in Madras. In Otaheité, where it is particularly frequent, it is called by the natives *fitté*, and has been attributed to the sudden alternations of temperature to which they are subjected, especially by frequently going in and out of the water. In the cases before us, however, neither this nor any other invariable antecedent was present, and it must be acknowledged that the etiology of the disease is very obscure. Nor is its pathology much more satisfactorily understood. It is most evidently characterized by hypertrophy of the skin and of the subcutaneous areolar tissue. The limb becomes so much enlarged as to be a great encumbrance to the patient. In some cases this enlargement is the main source of discomfort. In others—and this is most frequently the case—the skin is covered with large patches of warty-looking protuberances, discharging an offensive fluid. Occasionally, too, the skin bursts, giving exit to a discharge of similar character. The glands often suppurate, and the lymphatics are felt as hard, nodulated cords. Dr. Carnochan, of New York, describes a dilated state of the main arterial trunk. The disease does not seem to interfere much with the general health, and many of these patients carry their burthen for years, suffering immense inconvenience, but little or no pain. When pressure, frictions, and iodine fail to produce absorption, the general resource has been to amputate the limb; and this proceeding meets with success notwithstanding the fatty condition of the muscular structure which accompanies or results from the disease. Nor does it appear, according to Mr. Fiddes, of Jamaica, that the arteries of the limb are in any way indisposed to adhesive closure, though they probably participate to some extent in a similar fatty transformation. Mr. Fiddes remarks that twenty years ago there existed in Jamaica the greatest dread of surgical interference with elephantiasis of the leg, from a belief

that the complaint was generally associated with organic disease of the heart; but he has not found this opinion to be based on reality, and has repeatedly removed limbs with the happiest results. In these cases there does not appear to be any tendency towards recurrence of the disease.

Some years ago Dr. Carnochan, in view of the intractable character of elephantiasis, and with the object of avoiding amputation, ligatured the principal artery of the limb. He describes (*New York Journal of Medicine*, 1852) five cases in which he adopted this plan, and in all with complete success. The example was followed, we believe, by Mr. Statham, at University College Hospital, about a dozen years ago. The case was one of long-standing solid œdema of the foot, occurring in a man thirty-five years of age, and the anterior tibial artery was tied with the result of materially diminishing the swelling. The patient left the hospital, and we have no means of knowing the issue of the case. Mr. Butcher, in his "Operative Surgery," recently published, relates a case in which he tied the femoral artery in a woman aged forty-four, who had been affected with elephantiasis of the leg for eighteen years. At the end of six months she was able to walk well; and, when seen four years afterwards, she was quite free from the disorder, and following a laborious occupation. With the exception of Mr. Bryant's case, we do not know of any others in which Dr. Carnochan's plan has been adopted in Great Britain.

Mr. Bryant intends, we believe, to bring the subject before one of the medical societies, so that it will only be necessary to give a very brief account of his case.

The patient, M. T——, is a stout, healthy-looking brunette, single, twenty-five years of age, and employed in domestic occupations. She is a native of Carmarthen, and was admitted into the hospital on Oct. 10th, 1865. It is eight years since her left leg began to enlarge, and the increase in bulk has gradually extended upwards. She says that four years ago two quarts of fluid were discharged suddenly from her calf. She took to her bed, and at the end of five months the limb was nearly the same size as the other. As soon as she got about again, however, the swelling recurred, and in a short time the leg was as large as ever. Last summer she lay up again for six weeks, and the limb much diminished in girth. Previous to her admission she had been about for three months, and measurement gave this result: right leg—calf 14¼ in., knee 14 in.; left leg—calf 22 in., knee 17 in. To try the effect of rest, she was left in bed for three weeks. In the first week the limb decreased 1¼ in., but after that there was no change. There were a few papules about the foot, and fissures, which discharged offensive matter. The thigh was also much enlarged, and of a hard brawny texture; it measured 25½ in., as opposed to 20 in. on the sound side. In consequence of the enlarged state of the thigh, Mr. Bryant chose the external iliac artery for deligation.

On Oct. 31st this vessel was tied without difficulty. She recovered from the operation without a bad symptom. A fortnight after the ligature of the vessel, she had lost 2½ in. at the calf and 2 in. at the knee. The thigh had also decreased several inches, but owing to its shape it was difficult to take exact measurements. At Christmas the calf had lost 5 in., and the integuments had become quite loose and flabby. Mr. Bryant then allowed the patient to get up with her leg bandaged, but a tendency to swelling speedily showed itself, and she returned to bed. Since then her progress has been most satisfactory. Measurement at the present date (Feb. 6th) gives 14 in. at the knee and 16 in. at the calf.

ST. GEORGE'S HOSPITAL.

ELEPHANTIASIS OF THE LEFT LEG; TREATMENT BY LOCAL APPLICATIONS.

(Under the care of Mr. HOLMES.)

THE following case differs from Mr. Bryant's in that the swelling does not extend above the knee, whilst the papular excrescences about the foot are very much more developed. Mr. T. P. Pick, surgical registrar to the hospital, has obliged us with the following account of the patient:—

M. B——, aged fifty, cook, admitted September 20th, 1865. For the last five or six years she has suffered from swelling of the left leg and ankle. It caused her no inconvenience at first, and it was not till three years ago that it began to assume its present appearance, and it is only for the last nine months that she has been obliged to lay up. She has never lived in a hot climate. States that shortly before the disease commenced the wheel of a carriage had passed over her foot, and taken the skin off.

On admission, the left leg and foot were immensely enlarged, being three times their natural size. The dorsum of the foot and ankle were thickly studded with hard, brawny, wart-like excrescences, which discharged a thin, watery fluid. In a few places the excrescences were ulcerated, leaving foul, excavated ulcers. In the upper half the leg was much swollen and hard, the skin tense and smooth, and resembling solid œdema. The leg was ordered to be placed on a single inclined plane. This treatment was continued until October 22nd, with the effect of somewhat reducing the swelling. She was then ordered to have pressure applied by means of sheet lead. This was steadily persevered with until June 4th, 1866, and caused material improvement, the warty excrescences being considerably diminished in size. The discharge from the leg, however, became extremely offensive. She was now ordered a lotion consisting of equal parts of solution of bichloride of mercury (P.L.) and water, and at present the leg is still further improved; the excrescences are very little raised above the surface; the swelling, however, in the upper part of the leg is not diminished.

When compared with a coloured sketch of the limb drawn in October last by Dr. Westmacott, the leg now certainly shows a marked improvement, especially in the size and prominence of the tubercular masses. Mr. Holmes is not satisfied that the general hypertrophy of the limb has sensibly diminished, and he has some idea of tying the femoral artery. The patient, however, is not at present disposed to submit to this operation.

ST. BARTHOLOMEW'S HOSPITAL.

ELEPHANTIASIS OF THE RIGHT LEG.

(Under the care of Mr. T. SMITH.)

THERE were certain appearances noticeable in the following case which were wanting in those previously described. The skin of the foot was covered with scales of regular form, and separated by shallow fissures; and there were besides some patches of very dark grey colour, rough in texture, and resembling very much the skin of an elephant.

The patient, H. R——, was a married woman, thirty-seven years of age, the mother of seven children; and she had been afflicted with her terrible burthen for fourteen years. She had always lived in London; and, since her marriage, had looked after her family. When asked as to any possible cause of the disease, she told us a very curious story. Fourteen years ago, she said, whilst in service, she experienced a great fright. She fancied thieves had broken into the house; and, whilst listening for confirmation of her fears, she stood upon her right leg in suspense, holding on by the chimneypiece. She felt great pain in her shin at the time, and next morning there was much swelling around the instep and ankle. Medical advice was procured, and a doctor, according to her account, told her that "fright had turned a mask of blood!" (This is an expression we have frequently heard from the lips of uneducated persons. Of what is it a corruption?) Since that time the swelling continued, extending by degrees higher up the limb. In September the following measurements were taken:—

	Right side.	Left side.
Over dorsum of foot ...	11 inches ...	8¼ inches
Lower part of leg	17½ ,, ...	8¼ ,,
Calf...	19 ,, ...	11 ,,
Lower part of thigh ...	23½ ,, ...	14½ ,,

The enlargement here was most marked in the lower half of the leg. A very offensive discharge oozed from three or four fissures on its under surface. Before the swelling began she had never had any serious illness, and her general health continued to be very good. As a rule, she was able to walk about, though with some dragging of the limb. Every now and then, however, the leg would become red and inflamed, she would have great pain in it, and experience shivering. On this account she had been in various hospitals six times. Rest would materially abate her inconvenience, and bandaging always reduced the swelling. She was always worst in the evening.

Mr. Smith proposed to tie the femoral artery, but she declined (at least for the present) to submit to this procedure, and left the hospital in October.

In the Transactions of the Pathological Society, vol. xi., p. 303, Dr. John Ogle gives the result of a microscopical exa-

mination which he made of some specimens of skin affected very much as was the case in this patient. He found the consistence and thickness of the subcutaneous tissue owing to the infiltration of albumino-fibrous material, which presented much granular amorphous matter, containing fibres and corpuscular elements. The pigment was very dark and plentiful.

About the same time with the above, a man sixty years of age was lying in the hospital, under Mr. Wormald's care, affected with similar disease of the left leg. In his case a large ulcer had formed on the limb. Strapping and bandaging were applied, with some effect in reducing the swelling. Owing to misbehaviour he was suddenly discharged from the hospital, so that particulars of his case are wanting.

Provincial Hospital Reports.

WEST NORFOLK AND LYNN HOSPITAL.

DISEASE OF ANKLE-JOINT; MODIFICATION OF PIROGOFF'S OPERATION; WOUND HEALING, BUT REOPENING SUBSEQUENTLY; AMPUTATION; CURE.

(Under the care of DR. J. LOWE.)

THE most prominent and interesting features in the following case are, the enucleation of the bone from the tuberosity of the calcaneum, leaving the periosteum intact; the almost complete healing of the wound and formation of new bone in the cicatrix; and the reopening of the wound from disease of the tibia, which was found completely deprived of earthy matter by interstitial absorption, and was removed without the aid of the saw.

Robert L——, aged twelve, residing at Clenchwarton, was admitted into the above hospital Nov. 1st, 1859, with disease of the ankle. He was a pale strumous-looking boy, one of a large family, none of whom are strong. The disease began by his ankle being sprained by his father in pulling off his boot for him. He felt something snap, and the next day had so much pain that he was unable to walk. His father, thinking a bone was "out," took him to a bone-setter in the neighbourhood, who, as usual, confirmed the opinion, and proceeded with much violence to pull it in again. The ankle then became much more painful and swollen, and an abscess formed in the interior of the joint, ultimately discharging by several openings. On his admission into the hospital it was at once evident that the bone was extensively diseased, a large ulcer existing over each malleolus, and a probe readily passing to dead bone in the interior of the joint. After prolonged efforts to save the foot by poulticing, Scott's dressing, &c., it was found necessary, in consequence of his failing health, to remove the foot.

Accordingly on Feb. 27th, the patient being under chloroform, Dr. Lowe performed Pirogoff's modification of Syme's operation. On cutting through the os calcis, the tuberosity was found so extensively diseased that it could not with safety be left. It was therefore gouged cleanly away, leaving only the thickened periosteum. This was done very readily, as there was merely an external layer of bone, the interior being converted into fat, with a few spiculæ running through it. An excellent flap was thus obtained, which came nicely into position.

March 4th.—Wound dressed; the greater part is healed by first intention; discharge healthy.

10th.—Wound healed, excepting at the sides, where it is granulating freely.

14th.—Discharge more copious; no constitutional disturbance since operation. Apply dry lint and strapping.

20th.—Has been taking a mixture of citrate of iron since last report, as he was rather feeble; is improving fast; discharge from the wound slight.

28th.—Wound healed all but a small spot about the size of a horse-bean.

April 10th.—The ulcer has diminished to a mere speck, and as his health is not improving he is made an out-patient.

From this time the condition of the stump, which was excellent in form, began to deteriorate, and after a few weeks it was necessary to readmit him. The ulceration steadily increased in spite of all treatment. There was no denudation of bone; but a large, unhealthy-looking ulcer in the cicatrix, which would granulate feebly for a time, and then suddenly spread over a fresh portion of the stump. Attempts were made to restore the part to a healthy condition, until it became apparent that the patient's health was rapidly giving way, when the leg was with great reluctance amputated below the knee.

Nov. 1st.—The flap having been made in the usual manner, Dr. Lowe found it unnecessary to use the saw for severing the limb, as, on passing the knife round it to clear it of the soft parts, the blade at once entered the bones, and detached them as readily as if it had been cutting a piece of paper. On examining the amputated limb, it was found that every vestige of earthy matter had been absorbed from the bones, and they could be twisted up and readily tied into a knot. The only part where healthy bone existed was in the cicatrix, where firm, strong bone had been thrown out from the periosteum.

14th.—Wound doing well; a slight slough in the centre, but elsewhere healthy, and freely granulating; discharge very offensive. The patient is improving in health; appetite good; tongue clean.

22nd.—Wound fast closing; discharge no longer offensive.

29th.—Only one small spot remains unhealed.

Dec. 6th.—Made out-patient.

Jan. 14th, 1861.—Cicatrix firm and healthy. The patient is strong and well, with a good florid colour. Discharged cured.

LINCOLN COUNTY HOSPITAL.

DISEASED ANKLE-JOINT AND TARSAL BONES OF THE FOOT; AMPUTATION (A MODIFICATION OF PIROGOFF'S OPERATION.)

(Under the care of Mr. SEPTIMUS LOWE.)

ANN S——, aged seventeen, residing at Denton, admitted Nov. 25th, 1861. Is of a delicate, strumous constitution. Nine months ago the foot began to swell on the outer side of the ankle; had great pain in it. A week before admission an abscess burst, and is now discharging scrofulous matter. A probe detects disorganization of the ankle-joint and extensive disease of the bones. Was ordered iron and quinine, cod-liver oil, ordinary diet, and beer.

Dec. 17th.—A consultation was held, when, in consequence of the sloughing condition of the sore, no operation was deemed advisable at present. Ordered quinine mixture, six ounces of wine, bottled porter, and twenty minims of chlorodyne at bedtime.

25th.—Is much improved in health; appetite better; the sloughing has ceased, the sore looking healthy; much discharge; sleeps well.

January, 1862.—Under nourishing diet, wine, and porter, her general health is much improved, and the sore presents a healthy appearance.

March 18th.—In consultation, Syme's operation as modified by Pirogoff was resolved on, and was performed under chloroform. On sawing through the heel-bone, the portion of bone proposed to be left was found to be softened by disease; it was therefore deemed best to remove it, and as this could not be done by dissection, it was gouged out bit by bit, leaving the periosteum. Only one vessel was tied, and very little blood was lost.—Three P.M.: Has had a short rigor; complains much of the limb jumping; slight oozing through the bandage.—Four P.M.: There is considerable amount of blood about the folds of bandage, seeming to ooze very freely through one corner of the stump. On removing the sutures, the hæmorrhage was found to come from the anterior tibial artery, which was not tied during the operation, but it was now ligatured, and the stump left exposed. The patient has lost a considerable amount of blood; the pulse is scarcely perceptible; lips blanched, and pupils dilated; has a "swimming feel in the head." Essence of beef-tea and brandy *ad libitum* were given; and at seven in the evening thirty minims of chlorodyne.—Half-past eight P.M.: Has had another rigor; great pain in the hypogastric region; has passed urine; no headache or sickness; pulse 144, feeble.

19th.—Slept at intervals during the night; no pain in the leg; pulse 150, feeble. To continue the essence of beef-tea, brandy, and chlorodyne draught at bedtime.

20th.—Slept nearly all night; no pain; pulse 120. Repeat the chlorodyne at night.

21st.—Stump dressed; looking healthy. To have fancy diet, and eight ounces of wine.

23rd.—Ligature from the anterior tibial came away.

25th.—Ditto from the posterior tibial.

April 1st.—The sutures have been removed; the stump doing well. To continue the night-draught.

10th.—There is a small sinus at the outer angle of the stump, where it looks sloughy; probably there is a small portion of bone. An incision was made at the side and below, and the wound kept open by lint to give exit to the bone. Ordered an alteration of tonic, consisting of citrate of iron, quinine, and calumba.

20th.—The greater part of the stump, where it was before quite united, has sloughed, and she again suffers in health. To have tonic medicine, porter, wine, beef-tea, and eggs. A charcoal poultice to be applied to the stump.

May.—Under the above treatment the sloughing has ceased, and the flaps are now granulating very nicely; general health better.

June.—There has been again a little return of sloughing action, which has ceased. She is advised to go into the country, as the hospital atmosphere probably prevents the sound healing of the stump.

20th.—Discharged relieved.

Aug.—She presented herself at the hospital. The stump quite healed soon after leaving the hospital; can now bear her weight on it without pain.

ST. BARTHOLOMEW'S HOSPITAL, ROCHESTER.

RUPTURED URETHRA FROM A BLOW IN THE PERINEUM; THE PROSTATE PUNCTURED WITH TROCAR AND CANULA; SPEEDY RECOVERY.

GEORGE K——, aged twenty-four, a labourer, was admitted with severe hæmorrhage from the urethra, caused by a kick in the perineum while stooping at work. On admission, his trousers and boots were saturated with blood, and he appeared very prostrate. A catheter was tried to be passed, but without success, so that no alternative remained but perineal section. Dr. Brown, the consulting surgeon, therefore cut down upon the catheter, and then tried to pass it on into the bladder; but not succeeding, and not being able to find the lacerated portion of the urethra, he punctured the prostate through the wound with a trocar and canula. The former of these was withdrawn, and the latter tied into the bladder. Ordered beef-tea diet, six ounces of wine, and a pint and a half extra beef-tea daily.

March 14th.—Going on well; the urine flows freely through the tube. Ordered ten grains of rhubarb and mercury pill at bedtime, and half an ounce of the solution of acetate of ammonia every four hours.

17th.—Urine for the first time by the urethra. Catheter therefore removed.

After this time the urine passed almost entirely by the urethra, and the wound in the perineum rapidly healed.

On April 5th he left the hospital, perfectly well and strong.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JAN. 23RD, 1866.

DR. ALDERSON, F.R.S., PRESIDENT.

AN ACCOUNT OF AN ARTERIO-VENOUS CYST IN THE POPLITEAL NERVE; AMPUTATION; RECOVERY.

BY C. H. MOORE, F.R.C.S.,

SURGEON TO THE MIDDLESEX HOSPITAL.

A WOMAN, aged thirty-one, received a blow with an iron pump-handle in the middle of the ham. In a fortnight a painless, movable swelling, of the size of a hazel nut, was found in the situation of the injury, and but for its distance from either hamstring would have been pronounced to be an enlarged bursa. In sixteen months' time the tumour had increased, and seemed partly solid, and she first felt pain, which was referred to the foot. Three months afterwards, and twice subsequently in the following three months, the swelling was punctured, and on each occasion a yellow fluid, tinged red, first escaped, and as it flowed gradually deepened in colour, and continued to issue freely as blood from an open vein. The tension of the swelling was but temporarily reduced by these operations, and it increased in size so as completely to fill the ham, and protrude backwards in two prominent lesser swellings. The pain in them and along the leg and foot, the exquisite tenderness of the tumour, and a peculiar sudden pang shooting to the foot, while the canula was held motionless in the tumour, showed the nerve to be in some way mixed up with the swelling. After putting on a tourniquet, Mr. Moore made an incision into the tumour. Serum, black clot, loose fibrin, and some small clusters of white corpuscles were dislodged, partly with the finger and partly with a copious rush of blood from a vein at some deep part of the large cavity which had been opened. This proved to be a thin cyst, with a shining interior membrane, expanded into alternate ridges and sacculi, and traversed, like an auricle or right ventricle, by many firm cords. It being impossible to dissect it out, and improper on account of the state of the woman's health to leave the sac to suppurate, Mr. Moore at once amputated the limb. The patient recovered. Upon examining the limb the disease was found to be a vast cyst within the popliteal nerve, shaped like a double cone, one continuous with the higher, and the other with the lower end of the nerve. The expanded and hypertrophied textures of the nerve constituted the cyst, and the cords passing through it and along its walls were disparted nerve-bundles. A large vein, having no valves between it and the popliteal vein, opened obliquely like the ureter, on the front of the cyst; and in the upper cone, where alone firm lymph was collected, an artery equal in size to the superficialis volæ opened into the cyst. The disease thus proved to be an arterio-venous aneurism, but unlike those which are more commonly observed in the small size of its artery, in the possible fact of venous blood having sometimes regurgitated into it, and in the unruffled quiescence of its contents, which had even separated into their natural constituents, almost as when blood coagulates after its withdrawal from the living body.

Mr. GASCOYEN eulogized Mr. Moore's treatment of his case, and thought it preferable to tying the femoral artery. He related a case in which a patient suffered from bronchitis, and a tumour in the popliteal space, which was of an aneurismal character. He tied the femoral artery. The patient lived a year, and then died of heart-disease. The tumour in the popliteal space was found to be coated with the posterior tibial nerve, which completely encased it. The tumour was filled with coagula.

Mr. HOLMES COOTE was inclined to think, looking at all the circumstances of the case, that the tumour in Mr. Moore's case was of a malignant character. He had seen and heard of several cases in which a tumour, supposed to be a blood-cyst, turned out to be malignant.

A CASE OF MULTIPLE NEUROMATA AFFECTING THE NERVES BOTH WITHIN AND EXTERNAL TO THE SPINAL CANAL, SOME OF THE TUMOURS BEING OF A CYSTIC NATURE.

BY SEPTIMUS W. SIBLEY, F.R.C.S.E.,

LECTURER ON PATHOLOGICAL ANATOMY AT THE MIDDLESEX HOSPITAL.

This case was submitted to the Society as being a remarkable example of the cystic form of nerve-tumour, and as an illustration of the extraordinary multiplicity which is sometimes observed in this form of disease. The subject of the disease was a coach-painter, who died at the age of forty-five in the Middlesex Hospital, under the care of Mr. Henry. The patient had enjoyed good health till seven years before his death, when he became less strong, but had no definite symptoms till four years ago, when the use of his lower extremities became impaired, and by degrees he lost all power of movement. He had also suffered from sloughing of the back. When admitted into the hospital, he had no power over the voluntary muscles of the lower half of the body, the legs being contracted and drawn up. He retained some power of motion over his upper extremities, being able to feed himself if his food were first cut up for him. Cutaneous sensibility was quite absent in the lower extremities; but he was able to feel to a certain extent with his hands. The urine and the fæces were passed involuntarily. A large tumour was observed below the elbow, and another below Poupart's ligament on the left side. He died after he had been in the hospital a month.

At the post-mortem examination there was no disease of the viscera of the chest or abdomen. The brain and the cranial nerves were healthy. On opening the spinal canal a number of tumours were observed connected with the nerves within the membranes of the cord. In the cervical region there were several tumours, and the largest of these (about the size of a large nut) had pressed upon the spinal cord, which at this point was extremely constricted and softened. There were also many neuromata in connexion with the nerves in the lower part of the cord. In some places these were so

numerous as to present the appearance of beads strung on a thread. The large tumour which was observed during life below Poupart's ligament was found to be connected with the anterior crural nerve. It was enclosed in a fibrous capsule, and on section presented the appearance of a fibro-cellular tumour interspersed with cysts. These cysts were of various sizes, the largest being about the size of an egg, and partly filled with imperfectly organised blood-clots. A second smaller cyst was filled with gelatinous material. The remaining small cysts were filled with clear serous fluid.

Reviews and Notices of Books.

Cases illustrative of the Pathology of Dysentery. With Remarks. By Dr. S. G. CHUCKERBUTTY, Officiating Professor of Clinical Medicine, and Second Physician to the Medical College, Calcutta. Calcutta: Military Orphan Press.

THIS is a valuable contribution to the pathology of Indian dysentery, as seen in that unsanitary and most unsavory city which may be regarded as the head-quarters of this formidable disease. The little pamphlet consists of a brief abstract of forty-one cases of dysentery observed by the author in the hospital of the Medical College, Calcutta. It appears that in fourteen months Dr. Chuckerbutty treated 280 cases of dysentery. Of these, 189 were discharged, and 91 died; the mortality thus being 32·5 per cent. In only 38 of the fatal cases was a post-mortem examination obtained, and the whole of these are given. There is also a careful summary of the morbid anatomy of the cases, showing the lesions resulting (1) from irritation of the mucous tubular glands; (2) from congestion of the mucous membrane; (3) from exudative inflammation of the mucous coat; (4) from follicular inflammation of the mucous coat; (5) from phlegmonous inflammation of the mucous coat; (6) from erysipelatous inflammation of the mucous membrane; (7) from gangrene; (8) from submucous cellulitis; (9) from tubercular deposit; (10) from "intestinal apoplexy"—an ill-chosen term, by which the author intends to express effusion of blood in the submucous tissue.

Dr. Chuckerbutty also gives a summary of the lesions resulting apparently from "disorders of the blood," as in cases complicated with albuminuria, syphilis, &c. No less than fifteen different kinds of sloughs are described, and ten different varieties of ulcers.

There is also a summary of the complications found in the cases examined—e. g., liver: (*a*) simple congestion, 1 case; (*b*) portal congestion, 3 cases; (*c*) enlargement, 2 cases; (*d*) capsulitis, 1 case; (*e*) cirrhosis, 2 cases; (*f*) fatty degeneration, 3 cases; (*g*) abscess, 3 cases; (*h*) inflammation and adhesions of the gall-bladder, 1 case.

The author urges that most of the pathological conditions he so minutely describes in his paper can be diagnosed during life; and hence the value of an intimate acquaintance with them. "Careful physical examination will supply in dysentery as certain information as it does in a case of pneumonia or Bright's disease." The modes of physical examination insisted on are: 1st. The examination of the abdomen by careful palpation to detect tenderness, thickening, &c., and the condition of the solid organs. "Tenderness and thickening of the intestine point to the seat of the inflammation, or, if considerable, to the situation of separating sloughs or colickly distension of the diseased structures." The information thus obtained has, in the opinion of the author, important bearings on practice—e. g., "showing, firstly, where leeches and blisters should be applied; secondly, where ice may be applied in cases of hæmorrhage." 2nd. The examination of the stools. In a foot-note to this part of his paper, Dr. Chuckerbutty acknowledges that the particular method of investigating the stools described in the text was first practised and described by Dr. Edward Goodeve, Professor of Medicine in the Calcutta Medical College. This is well, so far as it goes. But Dr. Goodeve did more than describe the mechanical process of examining the evacuations in dysentery; he showed the pathological and practical significance of the various sloughs and other morbid matters, as well as the mode of detecting them; and this, we think, our author was bound to acknowledge more clearly than he has done in the meagre foot-note to which we have referred.

We have not space to follow Dr. Chuckerbutty into that part of his paper in which, following Dr. Goodeve, he endeavours to show the practical information to be deduced from a careful observation of the sediment of dysenteric stools when freed by washing from fæcal and other matters. We commend the paper to the careful perusal of those who hold the opinion that the lesions of dysentery are uniform in their seat and modes of commencement and progress; and, in conclusion, we thank Dr. Chuckerbutty for this contribution to pathological anatomy, which is creditable to his knowledge and industry, as well as to the school in which he is an efficient and useful teacher.

Companion to the Medicine Chest: giving the Properties and Doses of the most useful Domestic Medicines; also, Directions for Sick-room Cookery. By PETER SQUIRE. London: John Churchill and Sons.

MR. SQUIRE explains the reasons for producing this little pocket companion to be, that existing treatises having a similar object are not only too cumbrous, but treat upon many medicines that have long ceased to occupy a place in medicine chests of modern construction. The author has therefore, in a small pamphlet suited to the drawer of a chest, and so always at hand, described the properties of such medicines only as are most serviceable for ordinary domestic use, or for cases of emergency where medical aid cannot be immediately obtained. The little book is of seductive simplicity, and very handy. But a medicine chest is a possession liable to be much abused; and we fear that this very facile introduction to its "uses" is not at all likely to check such abuse. If Mr. Squire could compress a manual of diagnosis into as portable and readable a treatise, the good would be unmixed; but the whole subject of diagnosis and prescription, of which only the latter half is here attempted, is better left in the hands of the medical practitioner, than assumed either by the dispensing chemist or the yet more imperfectly instructed layman, possessed of a medicine chest and a pocket companion.

JACKSON'S *Gymnastics for the Fingers and Wrist.* With 37 Diagrams. pp. 99. London: Trübner and Co. 1865.

THIS is a most ingenious little work, showing how, by a series of specific exercises, the muscles of the hand and fingers may be so strengthened as to enable young persons to perform on musical instruments without that wearing practice upon the instrument itself which is at present the only received method of acquiring dexterity on the pianoforte, violin, &c. Mr. Jackson has diligently studied the anatomy of the hand, and shows how little we ordinarily exercise the several muscles upon which rapid movements of the individual fingers depend. He has submitted his plan to several eminent anatomists, who fully endorse his novel views; and we believe his work may be advantageously consulted by those who have young persons beginning the study of music under their charge, or by any, in fact, who desire to gain great flexibility and dexterity of their hands—medical students and young surgeons to wit.

De la Résection du Genou. Par M. LÉON LE FORT.

THIS is an essay on Excision of the Knee, written in 1859, and published among the "Mémoires de la Société de Chirurgie de Paris" in 1864, but without addition or alteration. Hence the value of the essay as regards the estimation of the operation in both England and France is somewhat diminished,

since within the last few years British surgeons have become more careful in the selection of their cases; whilst French surgeons, and among them MM. Follin, Gosselin, Dusseris, Verneuil, Giraldès, Surbled, and the author, have introduced the operation with success into French practice. M. Léon Le Fort visited England in 1858, and he gives here the result of his observations at the several metropolitan hospitals, and a table of cases operated on up to 1859. The literature of the subject of excision of the knee has recently been enriched by the late Mr. Price's essay, and we presume we may expect a not less valuable contribution from the successful candidate for the Jacksonian essay on the same subject, now undergoing adjudication.

The Skin Eruption of the Cattle Plague. Photographed from Nature. Life Size. By ALEX. HALMANNO SQUIRE, M.B. Lond., &c. Churchill and Sons.

OUR high opinion of Mr. Squire's coloured photographic representation of skin diseases has been already strongly expressed. We have now to thank Mr. Squire for a most opportune representation of the much-debated eruption of cattle plague, executed in a way which makes it worthy of its predecessors in the series. Mr. Squire says, in his short but clear description of the eruption, that he has found it most developed on the udder and around the teats. Accordingly he has photographed one of the teats with four crusts on it, which he thinks could originate only in *pustules*. The photograph is a very beautiful work of art, and must be regarded as giving the best idea of the eruption which can be obtained without seeing it in nature.

PNEUMONIA AND VENESECTION.

To the Editor of THE LANCET.

SIR,—As Professor Bennett has more than once alluded in your journal to remarks made by me in a clinical lecture on bloodletting, perhaps you will kindly allow me to say a few words on his two interesting cases of pneumonia published in your last number.

Professor Bennett gives them to show, by comparison, the good effects of the restorative treatment (as he terms it), and the ill effects of bloodletting in pneumonia. I cannot admit that the comparison is in any sense a just one. His first case is that of a man who, it appears, had had some years previously acute rheumatism; and, in addition to the pneumonia, was the subject of organic heart disease. Here there was a complication of diseases; and as Professor Bennett gives no further account of the heart affection, beyond telling us that there was a blowing murmur at the heart's apex, we are left to conjecture how much of the difficult respiration depended on the heart affection, and how much on the pneumonia—that is to say, we have no means of judging how much of the cure in this case of chronic heart disease depended on the mere tranquillizing (by rest, &c.) of the heart's diseased action. A hawker, exposed to severe weather, and the subject of organic heart disease, is just the case which we should *à priori* expect to recover rapidly from lung affection, in so far as that lung affection was produced by exposure and over-exertion. Tranquillizing the heart would be the first step in the case.

Professor Bennett's second case, as showing the ill effects of bleeding, is still more unsatisfactory. I have just as good a right to say that the bleeding saved the patient's life as Professor Bennett to say that it prolonged his convalescence. The patient appears to have been the subject of kidney disease as well as of pneumonia. His urine was albuminous when he entered the hospital, and was albuminous when he left it; and Professor Bennett heads the case, double pneumonia, albuminuria. Now, I should like to ask Professor Bennett, whether he would not expect, from the very nature of the case, that a man suffering from pneumonia plus disease of the kidney, would be likely to recover much more slowly than a man suffering from pneumonia plus cardiac disease of the kind supposed in Professor Bennett's case? Surely he will answer "yes"; and if so, then clearly he cannot fairly attribute the lingering illness to the bleeding. He will much more reasonably attribute it to the unhealthy condition of the body, which is necessarily associated with organic kidney-disease. Neither does his first case show that bleeding would not have been of great service to the patient. Surely it is no light matter for a man to be the subject of urgent dyspnœa and acute pain in the side for a whole week, to suffer for a week severe symptoms, which the loss of a few ounces of blood might immediately and perhaps effectually remove.

Be this as it may, I am sure those who carefully read these two cases will agree with me that they are not capable of just comparison, and that they offer no satisfactory data from which to judge of the real effects of bleeding in acute affections of the chest.

One word more as to the word "restorative," which is apt to mislead. Surely everyone may call his treatment "restorative;" for what is his intention but to restore the patient to health? Professor Bennett, however, would make it appear that there is something antagonistic between bloodletting and giving the patient nourishment, support, and stimulants. But this is quite a mistake. In my view the bleeding is employed, not to cure the inflammation, but simply and solely to relieve that degree of painful congestion of heart and lungs which is one of the occasional consequences of pneumonia, and of itself endangers life, and interferes with recovery, by oppressing all the organic functions. I would and do give "restoratives" equally with Professor Bennett, and admit nothing antagonistic between the giving of restoratives and the letting of blood. I have again and again said, and I wish I could impress it upon my friend Professor Bennett, that the bleeding is in no sense to be considered as a cure for the pneumonia. I don't believe that bleeding ever did or ever will cut short a case of pneumonia; but I do believe that in those comparatively few cases in which the inflammation is accompanied with urgent dyspnœa, bleeding moderately will not only give great and immediate relief from most painful symptoms, but will also, by the very fact of this relief, enable us more effectually to administer requisite restoratives.

I am, Sir, your obedient servant,

Harley-street, Feb. 5th, 1866. W. O. MARKHAM.

VENESECTION IN ITALY.

To the Editor of THE LANCET.

SIR,—Having observed a paragraph in last week's number of THE LANCET, headed "Venesection in Italy," in which (quoting from the *Reader*) it is stated that my late uncle, Sir Charles Eastlake, had fallen a victim to a merciless course of bloodletting, I think it right to correct an error upon this point, which has by some means crept into several journals.

In September last I was summoned to Milan to attend my uncle who was alarmingly ill with pneumonia. To my grief I learnt on my arrival that the Italian doctors in attendance had taken blood from the arm once, but I fortunately came in time to prevent Sir Charles from being subjected to those frequent bleedings to which the late Count Cavour and many others have undoubtedly fallen victims. It is, of course, a very painful subject for me to touch upon, but in a spirit of warning to those who travel in Italy, I think it only my duty to caution them against the medicinal treatment of acute diseases which exists even amongst the most eminent Italian physicians. Not only was Sir Charles deprived of any kind of stimulants and kept upon the lowest possible diet before I came to him, but I found that he had been most cruelly blistered and subjected to a long and baneful course of mercury. It is, I feel, due especially to the latter that a good constitution was thoroughly undermined. A grain of calomel had been ordered every two hours, and had been given for many days and nights, which produced the most distressing salivation and obstinate form of dysentery which it has ever been my painful duty to witness. Although Sir Charles sufficiently recovered from this condition after a few weeks to attend to his official duties, his subsequent journey to Pisa told upon his shaken system, and after lingering for two months his vital powers at length succumbed.

I remain, Sir, your obedient servant,

HENRY E. EASTLAKE.

Welbeck-street, Cavendish-square, Feb. 1866.

MEDICAL MEN IN THE ITALIAN PARLIAMENT.—We learn from *L'Imparziale* that eighteen medical men have seats in the present Italian Parliament—viz., eleven in the Chamber of Deputies, and seven in the Senate. Out of these eighteen medical men, three among the deputies, and four among the senators, are editors of medical journals.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 10, 1866.

A PROFESSED grievance-monger would be intolerable if he did not sometimes hit a blot; and Mr. POPE HENNESSY, late member for the Kings County, has done a real service in reminding us (by a letter to the *Pall-mall Gazette*) of what is meant by sending convicted Fenians "to Pentonville."

Most people have heard of the separate system of Pentonville, but few have knowledge or imagination enough to realise the horrors of it. The prisoners are not allowed to speak to, nor, as far as possible, to see each other. Each has his separate cell (thirteen feet by seven, a portion of it occupied by a watercloset, which he is required to scrub and cleanse out every morning); there he works and eats by himself; and there he is kept for six months at least, cut off, as far as ingenuity can do it, from all communication with his fellow-men. He has to conform minutely to a strict system of rules; if he fail in this he is liable to be flogged, or sent—it may be for as much as twenty-eight days—to the "blackhole" upon bread and water. No mere description can give any idea of the dreadfulness of this kind of life. Bad as it may look, it looks far better than it is; for this is one of those rare cases where the appearance of suffering is less shocking than the reality. That we may know what it is, let us judge it by its fruits. These are, in a considerable proportion of cases, suicide, fatuity, or madness. Those who have seen "It is Never Too Late to Mend," so admirably—only *too* vividly—represented at the Princess's, will probably have no difficulty in understanding this. There has been an immense improvement in prison discipline since the events occurred which Mr. READE has worked up in his novel and play. The will of a prison governor is no longer uncontrolled. But that horrible representation helps us to conceive of what a strict separate system is to prisoners, worked as it must be by men who combine the soldier's rigid attention to routine with the callousness of the policeman. Pentonville is the only British prison where this system is severely carried out. Convicts who have committed crimes—attempted murder, it may be—at other prisons, are sent, by way of punishment, to Pentonville: to Pentonville it is that the British Government has sent the convict Fenians.

It is not easy to understand how the Pentonville system has been maintained, even for the worst class of offenders. To inflict suffering for suffering's sake is nothing less than diabolical; and we have never heard of any results produced by this system to compensate its terrible evils. A system worse adapted to the organization of the average convict could scarcely be imagined. The run of convicts are persons of low cerebral development, and of no intellectual resources. Association and the habits of society are necessary to keep their feeble powers from stagnating; deprived of these they are in imminent danger of falling into helplessness and imbecility. And this is what often happens to them in Pentonville. Judge THERRY says that the Pentonville convicts in New South Wales were found to be "unfitted for domestic and general service;" they were of "abstracted and eccentric habits;" not rarely their mental faculties appeared to have been seriously impaired. A similar account has been given of their condition on arriving at Chatham. The Deputy Governor of Chatham, Mr. MEASOR, has stated before a Royal Commission, that "they appear as if they had been undergoing something which had so utterly depressed their system that you would no more think of treating them as reasonable beings, capable of being strongly remonstrated with, than you would a man who was almost at the door of death." From what Sir JOSHUA JEBB told the same Commission, it appears that occasionally the convicts were subject to fits for a time when they were, as the official phrase goes, "let out into the world." While such is the general description of Pentonville convicts, it appears from the Convict Prisons Report for 1863, that, out of 852 convicts received at Chatham during that year, 85 had to be sent to the asylum at Broadmoor. Within the prison, cases of insanity and of suicide are frequent enough to put it beyond doubt that the system is too bad for flesh and blood to bear. Probably it is the men of active mind and impatient temperament—the men most resembling the convicted Fenians—who are driven by its tortures into lunacy, or seek refuge from them in death.

Sir GEORGE GREY will have to remember that those misguided men have not been condemned either to death or to Broadmoor. Otherwise we shall be in great danger of being shamed before the world. Our RUSSELLS and GLADSTONES, amid the plaudits of the nation, have called foreign despotisms to account again and again for a treatment of political convicts which, though very ugly in its details, was, looking to its results, essentially less terrible than that to which the Fenian prisoners are now subjected. They have maintained, or used such language that they seemed to maintain, that it was immoral and abominable that political prisoners should be treated as common convicts; and we all have cheered them on while doing so, thanking GOD that we were not as the inhuman Neapolitans and Austrians. If we were right in this, are we right in treating the Irish convicts as common felons? That LUBY, O'DONOVAN, and their comrades, were not POERIOS or PELLICOS is nothing to the purpose. Probably, however, the treatment of political prisoners should always depend upon the circumstances of each case. At any rate, Governments cannot be debarred from using any degree of rigour which the public interests may require. But how is it necessary or advantageous to treat a set of foolish insurrectionary politicians as we do—without being able to justify our doing it—the most debased and dangerous class of criminals? It concerns the good name and probably also the interest of the country that those men should meet with no exceptional ill-treatment. Sir GEORGE GREY is a humane man; let him, at any rate, give those unfortunate men the best treatment which our system allows convicts to receive. The nation is not seriously afraid of the Fenians; and it is generous enough to see Fenian convicts exceptionally well-treated, without making any outcry, such as has sometimes been heard, about the "petting" or "coddling" of convicts. These particular convicts are not understood to have much cerebral matter to experiment upon, and we should, for our part, be relieved to learn that it is not going to be subjected to the trying ordeal of the system at Pentonville—an ordeal which, taken in connexion with the sudden and complete reversal of the dreams of the Fenians, might easily send a larger proportion than 10 per cent. of them to Broadmoor.

ATTENTION was directed by us last week to the endeavours being made by a most praiseworthy society to secure, permanently for the future, the open spaces and commons around London, so that its inhabitants might not be gradually deprived of every source of fresh air. As a fitting appendage to our previous remarks, we would now say a few words on what has been done, and is still being done, in another way not less beneficial to the poor smoke-dried artizan. We allude to the provision of house-accommodation for the working classes. The numerous "improvements" recently carried out in the metropolis, the cuttings for railways, and the demolition of low-lying districts, rookeries, and squalid streets, have been the means of unhousing thousands of the poorer classes, and turning them suddenly adrift, homeless and forlorn. Nor is this all, but projects are still daily reported each of which would involve the misery of many thousands more, the houses sheltering whom, miserable as they are, being regarded as just so much stubble to be rooted out and destroyed. One result has been such fearful overcrowding in already too-crowded districts of pauper residences, that fever, with its attendant fatality, has been for the last year or two quite a plague in some of the metropolitan parishes; whilst another effect, according to a popular writer, is "that we have amongst us a constantly increasing community, stung by a sense of injustice, reduced to desperation, and still further maddened by the conviction that the only reward they can hope to win by abstaining from deeds of violence is the privilege of earning a crust of bread and a drink of water-gruel by so many hours of task-work, or of going into a workhouse so much less comfortable than the prison."

Just in time, fortunately, as a means of doing something towards antagonizing this evil of our very benefits, came into the hands of the public that magnificent gift from MR. PEABODY of £150,000—a donation unostentatiously and generously handed over "for the benefit of the poor of London, or to ameliorate the condition of the needy of this great metropolis, and to promote their comfort and happiness." Now, it must certainly be admitted that the trustees invested with the charge of the noble gift have adopted a course with regard to it most conformable to the recorded intentions of the donor, and most opportunely beneficial to our cast-out and homeless artizans. The trustees had ample latitude allowed them in the appropriation of the money to its noble purpose. Hospitals both for acute and chronic maladies might be built, almshouses and dwellings for the absolutely destitute might be founded and endowed, certain kinds of educational establishments be fostered, &c. But no; very wisely and opportunely, we again say, did the trustees come to the resolution, "without precluding the consideration of other subjects hereafter, to confine their operations for the present to the object specially recommended to their notice by the donor—viz., the improvement of dwellings for the poor of the metropolis." This have they then been doing, and in illustration of their work the trustees have recently issued a neatly illustrated report or "statement" thereon. One site was chosen in Commercial-street, Spitalfields, near the terminus of the Eastern Counties Railway; another site was fixed upon at Chelsea; a third at Islington; and a fourth at Shadwell,—each site and works costing, we may say, on the average, £30,000. On each site an extensive and model structure has been raised, with the view of affording decent, thrifty artizans a respectable home at a moderate rental. The principle and organization in each of these extensive structures are the same, according to the report before us. Drainage and ventilation have been ensured with the utmost possible care. The instant removal of dust and refuse is effected by means of shafts which descend from every corridor to cellars in the basement, whence it is carted away. The passages are all kept clean and lighted with gas without any cost to the tenants. Water from cisterns in the roof is distributed by pipes into every tenement, and there are baths free for all who desire to use them. Laundries, with wringing machines and drying lofts, are at the service of all the inmates, who are thus relieved from the influence of damp vapours in their apartments, the consequent damage to their furniture and bedding, not less a comfort than the banishment of rheumatism. Every living-room is abundantly supplied with cupboards, shelving, and other conveniences; and each fireplace includes a boiler and an oven. But what gratify the tenants, perhaps, more than any other part of the arrangements, are the ample and airy spaces which serve as playgrounds for their children, where they are always under their mothers' eyes, and safe from the risk of passing carriages and laden carts. And for all these comforts, what is paid? At the present moment, owing to the vast changes in the metropolis by which the houses of the labouring poor have been demolished to so great an extent, we are told that, on the average, the weekly charge for a single room, of a very poor description, is from 2*s.* 6*d.* to 3*s.*; for two rooms, 5*s.* to 5*s.* 6*d.*; and for three, from 6*s.* 6*d.* to 7*s.* Well, for the light, airy, and agreeable apartments in the "Peabody Buildings," the charge per week for one room is 2*s.* 6*d.*; for two rooms, 4*s.*; and for three rooms, 5*s.* When the first pile of buildings was thrown open in February, 1864, the number of applicants was, and still continues to be, considerably in excess of the accommodation available. In Spitalfields the number who took possession of their new and improved homes was upwards of 200, including such classes as charwomen, monthly nurses, basketmakers, butchers, carpenters, firemen, labourers, porters, omnibus-drivers, sempstresses, shoemakers, tailors, waiters, warehousemen, and others. On the whole, nearly 900 persons have been thus provided with very superior domiciliary accommodation at a comparatively reduced rate.

In evidence of the greater salubrity of these buildings for the poorer classes, the superintendents report that ill-health is rare, and that the number of deaths since the first opening has been only four. It is also stated that habitual drunkenness is unknown, and intoxication unfrequent. When the latter does occur to the annoyance of others, it is judiciously dealt with by giving notice to the offender that in the event of its recurrence he must be prepared to leave. There has been but one person sent away for quarreling and disturbance of the peace, and but one expelled for non-payment of rent. The crowning result, however, of the benefits springing from this particular appropriation of £150,000 is seen in the fact that MR. PEABODY, the donor of the money, has been so struck with the advantages arising to the poor, that, considering the increasing tendency to demolish their homes, he has generously placed in the hands of the trustees an additional sum of £100,000 for the same purpose as the former endowment. The great gift now amounts to a quarter of a million sterling, and is probably the most noble act of munificent charity ever

performed. We erect monuments to heroes of the battle plain, and scatter panegyrics over the remains of astute diplomatists. We bow down before princes and the proud ones of the earth, and rush madly to do homage to fine singers and brilliant fiddlers. Even a TOM THUMB and his baby are courteously ushered into imperial chambers. So "used up," indeed, would seem to be our gratitude in these and like lofty spheres of appreciable perfection, that we question whether the public generally will ever be got to bestow more than a passing thought upon the more than princely benefactions of a plain citizen to the poor of London.

Medical Annotations.

"Ne quid nimis."

THE NEXT ELECTION AT THE COLLEGE OF SURGEONS.

ALTHOUGH the next election to the Council of the College of Surgeons will not take place for five months, it will be well for the elective body, the Fellows of the College, to know who are the retiring members, and to have time to look about for efficient substitutes should they not feel disposed to re-elect those gentlemen.

This year will be exceptional in the fact that there will be but two retirements from the Council instead of three, and for the following reasons. Last year, as may be remembered, it would have fallen to Mr. Wormald's lot to offer himself for re-election but for the fortunate circumstance that Mr. Arnott retired at the moment, and that, according to the mysterious working of the bye-laws of the College, Mr. Wormald took his place, and was thus saved for a year. Mr. Wormald's time for retirement would have arrived this year in due course but for the fact that he is now President, and, according to Section 11 of the Charter of 1852, "No member of Council shall go out of office by rotation whilst holding the office of President." His retirement, therefore, stands over to next year, when there will be four retiring members of Council.

The two members of the Council who are about to meet their constituents are Mr. Luke and Mr. Hilton. Mr. Luke became a member of the Council in 1846, and has therefore enjoyed the privileges of office for twenty years; he became an Examiner in 1851, and was President of the College both in 1853 and 1862. Thus he has enjoyed the good things of the College in full measure, and must have in actual fees reaped no inconsiderable sums, since, putting aside all Presidential and Councillor emoluments, the fees for an Examinership of fifteen years' duration must equal £4500 at the very lowest computation.

Mr. Hilton has not been so fortunate. He was elected to the Council in 1854, and, curiously enough, stands senior to Mr. Quain, whose re-election came on last year, thanks to the inscrutable bye-laws. He became an Examiner last year on Mr. Arnott's retirement, and is now junior Vice-president.

On the present occasion we merely state broad facts, and leave them to the consideration of the Fellows of the College without comment. To the candidates themselves we would put it, how can they expect a re-election unless they vouchsafe their constituents some information respecting their conduct in office? Even the most popular member of Parliament would not venture on the hustings without having made some statement as to his antecedents and his aspirations for the future, and *his* electors have the advantage of full reports of all his speeches and votes, in journals which are open to all. How different is the case with regard to the highly-educated body of electors to whom Mr. Luke and Mr. Hilton are about to appeal! No information respecting views or votes afforded; no attempt to give an account of a most important stewardship—simply a participation (just or unjust) in the general scandal which attaches to the Council of the College of Surgeons as one of the bodies most opposed to progress and reform. If the election on the present occasion is to be converted into a personal canvass by the private friends of the candidate; if all sorts of promises are to be privately made, and then publicly broken, as on a recent occasion, the whole proceeding will degenerate into an unseemly struggle between the supporters of the London and Guy's Hospitals and the rest of the Fellows, and public advantage will once more fall a victim to private interest.

There is another point of great importance to which we would thus early direct the attention of both candidates and electors. It is, that the time is rapidly approaching for enforcing the 21st section of the Charter of 1842, which ordains "that the President and Vice-presidents shall no longer be chosen exclusively from or out of the Examiners, but from or out of all the members of the Council indifferently, and whether Examiners of the College or not." This clause has always been shirked by the Court of Examiners, and notably so in the case of Sir Benjamin Brodie, who was passed over for President in 1855 because he had ceased to be a member of the Court of Examiners. Mr. Hilton is now the junior Vice-president, and supposing him to be re-elected, Mr. Quain will fill that office next year. Mr. Quain is the *last* of the Examiners, and supposing Mr. Hilton to fail in his re-election it will be necessary this year, or under any circumstances it must become so next year, to choose for Vice-president either the next member of the Council in rotation, or the senior member of the Court of Examiners, Mr. Lawrence! We will merely sum up this veteran's achievements in the briefest form. Mr. Lawrence became a member of the College in 1805; a member of the Council in 1828; an Examiner (for life) in 1840, and has twice filled the President's chair. We simply ask whether it is to be endured that the presidential gown shall be allowed again to circulate through the Court of Examiners whilst men like Sir W. Fergusson, Lane, and Paget are deprived of all hopes of attaining the highest honours to which they are, by the Charter, expressly admitted. We would gladly hear the views of Mr. Luke and Mr. Hilton upon this and kindred subjects, and would commend them to the notice of forthcoming candidates for the Council, and the body of electors in general.

HOMOLOGIES OF THE LIMBS.

A VERY interesting point in human anatomy received incidental elucidation on Thursday week, in a paper on the Echidna, read at the Linnæan Society by Mr. St. George Mivart, lecturer on comparative anatomy at St. Mary's Hospital. Dr. G. M. Humphry, of Cambridge, in his treatise on the Skeleton, and more recently in his paper on the Limbs of Vertebrates, called attention to the interesting fact, that in the embryo the limbs are first directed downwards, their extensor surfaces being turned outwards, and their flexor surfaces inwards, towards the middle line of the body. Also that, as development proceeds, the limbs become bent in opposite directions, the knee being turned forwards, and the elbow backwards. He has explained by this circumstance the correspondence between the *back* of the arm and the *front* of the thigh, and has given instances of the permanent retention throughout life in some of the lower vertebrates of the condition transitorily presented by the human fœtus—that is to say, that in them both knee and elbow are bent outwards, while the radius and tibia, pollex and hallux, are on the anterior side of each limb. As regards the muscles, Dr. Humphry (in common with all his predecessors) considers the iliacus as the representative of the subscapularis. Professor Huxley, in his Hunterian course for 1864, supported in the main the same

views, except that he considered it possible that the iliacus might represent the supra-spinatus of the upper limb, and he grounded this suggestion on a comparison of the ilium with the peculiar scapula of the Ornithorynchus, in which, as Professor Owen had previously shown, the apparent anterior costa is really the margin of its spine.

Mr. St. George Mivart has been led by his examination of the Echidna to suggest a new interpretation of the serial relationship between the upper parts of the arm and thigh. He argues that if the limbs be placed in their primitive embryonic position—i. e., with the elbow and knee outwards, and with the radius and tibia, thumb and great toe forwards (the trunk being horizontal), there is an evident correspondence between the greater (radial) tuberosity and the lesser (tibial) trochanter on the one hand, and between the lesser (ulnar) tuberosity and the greater (peroneal) trochanter on the other. That there is, therefore, a *prima facie* probability that the muscles inserted into the great tuberosity answer to those inserted into the lesser trochanter, and *vice versâ*, the more important relation of a muscle being its insertion.

Mr. Mivart states that in the Echidna there is much similarity between the muscles which, according to this view, are serially related—namely, between the glutei and the subscapularis with the teres major on the one hand, and between the psoas and iliacus and the supra and infra spinatus on the other. These myological homologies, however, Mr. Mivart only offers as suggestions to be confirmed or disproved by further investigations; but the peculiar correspondence between the tuberosities and trochanters above-mentioned he positively affirms, giving instances from comparative anatomy to show that the relative size of those prominences existing in man is not constant, and especially calling attention to the conditions presented by certain fresh-water tortoises, in which what he considers the true relations are most plainly exhibited.

POOR-LAW MEDICAL OFFICERS: MR. HUME'S CASE.

THE sooner all the duties and risks of Poor-law medical officers are understood the better. A case has lately happened in Islington which shows how endless are the duties and how frightful are the risks. Mr. Hume is the medical officer for one division of the St. Peter's district of the Islington Union. His predecessor, Dr. Sansom, in a letter to a local paper, in defence of Mr. Hume's conduct in the case under allusion, gives the following as an outline of the duties of the medical officer: seeing the poor incessantly from nine till eleven A.M. at the medical officer's own house; then about five hours' work outside, or the seeing of thirty patients at their own homes; to say nothing of liability to all sorts of calls to extra duty, for which there is no extra pay, such as setting fractures, attending bad midwifery, &c. For the thorough discharge of this duty the doctor receives something less than a pound a week; that is to say, less considerably than the wages of a skilled mechanic or a muscular navvy. Where so much work has to be done for so small a sum, of course it must occasionally be done badly or not at all. This is the more inevitable if the doctor is not protected from promiscuous and frivolous demands upon his services by a careful gift of medical orders. And it is the case, be it known to all whom it may concern, that the doctor in many districts is not so protected. He (we understand the Islington Board of Trustees to say) must obey the call of all the poor, even without an order, in his district, or take the consequences of disobeying, which in Mr. Hume's case were, the censure of a jury presided over by a medical coroner, and the second highest punishment which the Board of Trustees could inflict—viz., to call for his resignation. Such is the grievance of Poor-law medical officers: the greatest amount of duty, with the least amount of pay, and the least amount of considerateness on the occurrence of the slightest failure in the discharge of that duty.

Mr. Hume, on a recent Sunday morning, was asked to go to see a poor woman said to be dying. He sent the messenger for an order, who failed to get one, and was referred back to the medical officer on the ground that it was not customary to give orders on Sundays. Mr. Hume, having other pressing duties, particularly a case of diphtheria and an obstetric case, declined to go unless the messenger either paid or produced a parish order. This stipulation for payment looks hard and unkind, but probably it is neither so hard nor unkind as it looks. It was probably used more as a test by which to judge of the depth of the applicant's conviction of the seriousness of the case than from any abstract care for the fee. Only doctors who have had experience of eleemosynary medicine can understand how little may ail patients who are said by their friends to be dying. But allow that Mr. Hume did not go to an urgent case. Be it so. He went to other urgent cases—those of diphtheria and midwifery. He could not go everywhere. As the event happened, it would of course have been better had he gone to see the woman who died. But he could not be sure that she was dying; she might not have died, and then nothing would have been heard of this case. The monstrous thing is to hold a single frail man responsible for all the bad chances of this mortal life among the poor in an immense district, simply because he happens to be the medical officer of that district, and gets £50 a year for doing the duty. Do it he never can. All he can do is to try to do it—to do his best; and this Mr. Hume seems to have done.

At any rate, up to this time he had always done his duty. Let us suppose that he slightly, or even seriously, failed. A coroner's inquest was held, presided over by Dr. Lankester, and censure of Mr. Hume was expressed by the jury without acquainting him with their deliberations, or giving him any chance of an explanation. We should be extremely happy to hear that Dr. Lankester entered his protest against this monstrous unfairness of condemning a man in his absence, without giving him the opportunity of defence or explanation.

As regards the action of the Board of Trustees in calling on a medical officer to resign on the first failure—supposing it is such—in the discharge of enormous and impracticable duty, it seems to us most impolitic and unjust. The quick and inevitable consequence of such action of guardians will be the injury of the poor. It will just come to this: that if Poor-law medical duty is, to begin with, all but impracticable, and the slightest failure of it is to be visited, not with kindly remonstrance, but with a demand for resignation or dismissal, those men who have any respect for themselves, and who are capable of good service and kindness to the poor, will decline such duty. And then God help the poor.

GUARDIANS AT WORK.

THE guardians of the Strand Union are certainly typical specimens of the class of men who have brought discredit upon our present system of metropolitan local government. It will be remembered that their infirmary was found by our Commissioners to be a wretched building, utterly unfit for the reception of the sick, overcrowded, and in every way discreditable to the guardians, who had made matters worse than they need be, even then, by establishing a carpet-beating business in the yard under the infirmary windows. We may refer to the report in THE LANCET of August 12th, 1865, for a description of the place and an exposure of the defects of administration which disgraced it. After the first outcry of indignation and denial, the guardians felt themselves forced into inquiry; and the necessary result of such self-examination was, a report which made their position no longer tenable. They resolved to build themselves an infirmary at Honiton; and we lately gave them credit for the resolution. They have set about the work, however, with characteristic ignorance and folly. From what we can gather of their proceedings, these wiseacres have drawn up their own general plans for this extensive building

and submitted them to the architect, who has put them into shape; and they have adopted and passed plans and drawings for this large hospital without consulting any medical authority. To have consulted their medical officer would not only have been an act of decency, but of common sense. Such a combination is, however, apparently repugnant to the feelings of boards of guardians. The result is, that it is proposed to erect an hospital including most of the worst features which such a building can possess. The wards run on each side of a corridor, and have windows only on one side, opening to the fresh air; the closets are placed far away from the wards, being massed together at each end of the long building; and the structure faces east and west. These plans must, however, fortunately be submitted to the Poor-law Board, and we can only hope that the presiding architectural genius there will not pass them. The powers of the Board are certainly very limited, and we hardly know whether it can refuse to pass them if its very modest and restricted requirements as to space &c. are complied with.

THE FEVER HOSPITAL.

THE managers of the Fever Hospital very well understand their duties, and meet the pressure of increasing demands for accommodation with a promptness and an energy which do them infinite credit. Two years since, when they found themselves compelled to enlarge their bounds or to refuse admission to cases, they built for themselves with great celerity a wooden construction fitted to contain sixty beds. The parish authorities were, as usual, obstructive, and brought down upon their heads the terrors of the law, and invoked the rigours of the local surveyor. The managers were equal to the occasion, and baffled their tormentors, who would fain have "improved" them off the land of the parish, where they are anything but welcome guests: they cased their building in brick. On this occasion they were beforehand with the local authorities, for they secured the countenance of the central powers of the Board of Works, and the auspicious nod of King Thwaites smoothed their difficulties. In little more than a week from the time at which they were moved to order the erection of an additional building, an iron hospital, fitted to receive forty patients, well warmed, excellently ventilated, and with 1800 cubic feet of space for each patient, stood upon the ground. The cheapness of the hospital building is not its smallest recommendation. It is a new sensation to hear of an hospital for forty patients costing only £300, the warming apparatus included. This is little more than £7 a bed. Within the last fortnight 292 patients have been accommodated.

THE INFIRMARIES OF WORKHOUSES.

THERE is reason to hope that the exposure of the wretched system of administration which prevails in the infirmaries of the London workhouses made by the reports of our Commissioners will have its legitimate practical consequence—a general and organic change in the system of management. Above and beyond individual details, and apart from the particular instances of neglect and practical inhumanity which these inspections have disclosed, the broad fact was apparent that there was a universal absence of what may be briefly defined, and will be well understood by the members of our profession, as an hospital organization. The guardians know nothing of the principles on which sick wards should be managed. Very few of these establishments have resident medical officers of any kind. Even in large houses, where as many as 150 or 160 deaths occur annually, there is no such necessary official; the nursing is abominable, and generally there is no night-nursing; the medical officer is frequently also the dispenser. In fact, workhouse infirmaries, which are the largest hospitals of this city, have not even a shadow of that system of management under which alone sick people can get proper attention.

An association is in process of formation which aims at remedying these evils. At a preliminary meeting held last week, it was resolved to promote an appeal to the Legislature to separate the care of the sick poor from that of the able-bodied, and to establish a certain number of workhouse hospitals in London, to which the present medical officers will still remain attached, but where they will have the advantage of the services of resident assistants, a proper staff of nurses, properly-fitted wards, a dispensing establishment with dispensers, and a system of organization such as exists in our voluntary hospitals. The scheme has already received highly influential support, and seems in a fair way to obtain success.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS.

PROFESSOR HUXLEY, after ranging over the more distant fields of zoological research, amongst forms of beings widely removed from the human type, comes now to treat of Mammalia. We had the pleasure to present to our readers in a very complete form the remarkable lectures in which he dealt with archetypal forms of the skeleton, and the doctrines which apply to their interpretation; and we desire also, now that Professor Huxley again approaches the consideration of classes ranging up to the anthropoid type of structure, to bring the principal conclusions before those whose engagements prevent them from attending this admirable course. Zoology is now so distinctly recognised as an almost necessary part of the scientific education of the student of the human frame, and is included by so many of the public examiners in the list of subjects recommended or required, that we should be happy to give these lectures in full did our space permit. But to do so would be to take from the subjects of practical medicine room which is already far below the demand made upon it week by week. We find the greatest difficulty in doing justice to the constant supply of practical contributions to the art and science of medicine which the increasing activity and research of the profession furnish for our columns. We are only able therefore, and this at a certain sacrifice, to devote to these lectures the space sufficient for a clear and intelligible summary of the main facts and doctrines of the lectures, and we fear that the able zoologist who prepares this summary will be sadly cramped within these limits. We may rely upon his skill, however, to accomplish the task; and as a considerable time must elapse before any full publication of this series is likely to be made, we hope to render a service to the profession and to all students of zoology by offering these summaries of Professor Huxley's present course.

HOW FEVER IS SPREAD.

IT is satisfactory to see that people are beginning to think seriously of the causes which give rise to that excessive prevalence of fever, and that extension of its contagion, which are indicated by the growing dimensions of the Fever Hospital, and reports of our—no, not our, but the vestries' medical officers. The means at the command of individuals in the middle and upper classes are usually sufficient to combat the danger and to accomplish the isolation of the immediate centre of infection—a proceeding which, however unpleasant to the individual, is unquestionably and absolutely necessary. But how is it with the poor? Crowded into small rooms, and at their wit's end to find lodgings, they learn to brave, if not to disregard, the dangers of infection. But these perils are not the less real because they are slighted, and the omission of precautions is inevitably followed by an extension of the disease. Among the simple measures which have been repeatedly indicated by the medical officers of health as necessary, and which would do something to limit the spread of contagious fevers, is the bestowal of a power to remove the dead from rooms where they lie amongst the living; to remove

fever-stricken patients from crowded rooms; to compel summarily the disinfection of rooms, furniture, and clothing in tenements occupied by several families, or about to be relet to new tenants. These are very simple measures, and probably no one, who thinks at all about the matter, will deny that they are requisite. Here, then, is a sphere of usefulness for any member willing to earn his spurs or add to his services to the State.

VENTILATION OF SEWERS.

AT the meeting of the Metropolitan Board of Works on the 2nd inst., a discussion arose respecting a report of the Main Drainage Committee which possesses great interest for sanitarians, and, in fact, for the public at large. The report of the committee recommended that a premium of 250 guineas should be offered "for the best plan for neutralizing and rendering harmless the offensive and poisonous gases in sewers."

We congratulate the committee on the forcible and plain-spoken terms they have used respecting the noxious exhalations of the sewers, to which we have from time to time directed public attention, but hitherto with little effect. "Offensive and *poisonous*" are words to be "understanded of the people;" and the more fully they are appreciated the sooner will the people's representatives bestir themselves to find a remedy. So long ago as February 22nd, 1862, we devoted an article to the consideration of this very subject, and gave in detail the experiments with charcoal deodorizers invented by Dr. Stenhouse, and applied under Dr. Letheby's directions; but since that time no uniform plan of ventilating the sewers has been adopted, and we are still subject to offensive gullyholes and the escape of deleterious gases into our houses.

Some members of the Board of Works appear to have capacity for grasping only one idea at a time; and as the main drainage has hitherto occupied the major part of the Board's attention, foul liquids seem to have excluded the much more subtle foul gases from their notice. Thus we find one member of the Board (Mr. Collinson) looking upon the proposition as altogether premature (!) until the effect of the new main-drainage system upon the ordinary sewers had been ascertained, and moving as an amendment to the proposition the following:—

"That inasmuch as a large sum of money has been recently expended in the main drainage works of the metropolis, it is not at present expedient to incur any further expense until, after a fair trial of them, it is shown that offensive gases are generated in the sewers after the main-drainage works are completed."

We need hardly say that the amendment met with a seconder, and that it was supported by a third speaker (Mr. Evans), who was of opinion that when the main-drainage works were completed there would be such a rapid flow through the sewers that the generation of offensive gases would be prevented. It is satisfactory, however, to find one member of the Board (Mr. Miller, M.P.) fully corroborating all we have ever advanced respecting the poisonous nature of sewer-gases, and illustrating by his own experience the difficulty of inducing the authorities to whom these matters are entrusted to interfere in them. Mr. Miller "gave his cordial support to the motion, as he felt the dangers to which they would be exposed should there be an outbreak of cholera in the metropolis during the coming summer. Some years ago he took a great interest in this question, and he saw a map in which the situation of gullyholes leading to the sewers was indicated on it by a black mark. In the immediate vicinity of these gullyholes it was found that fever and other diseases prevailed to a great extent. One of these gullies was near to the house where he resided, and the effluvium emitted therefrom was of the most poisonous description; but although he applied to the parish authorities, and pointed out to them the dangers to which he was exposed, they would do nothing to lessen the evil. One day, however, he met with one of these persons, and took him to the spot, and then a consent was given that this gully should be trapped; but the effect of this trapping was to render it dangerous to the life of any workman to enter the sewers." Committees and boards seem to be as destitute of olfactory organs as they were said to be wanting in both corporeal and psychical attributes by Sydney Smith.

We look upon the hope that the completion of the main-drainage works will prevent the formation of gases in the sewers as a chimera with no foundation. No doubt rapidity of flow will tend to diminish the deposit of solid material in the sewers, which when exposed by the cessation of the current tends to ferment; but *some* deposit will probably always take place (except perhaps in the very largest channels), and from this gases will be evolved, which will necessarily rise to the surface of the stream, and will infallibly escape by the first outlet presented to them. Ventilation or depuration (for simple deodorization is not sufficient) will certainly be needed before we can hope to be free from the typhus fever now so rife in London.

But to return to the Board of Works. After further discussion, the motion was put to the meeting, when the votes being even, no order upon the question was made. Thus things remain *in statu quo* so far as the Board of Works is concerned; but we trust that the matter will be taken before another and a higher tribunal by Mr. Miller, Mr. Brady, or some member of the House of Commons. Legislation as to the purifying of the gases we inhale is as necessary as that respecting the water we drink, and we shall hope ere long to have some uniform and general system of sewer-ventilation other than by untrapped and most dangerous gullyholes.

PROFESSOR HUXLEY'S LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

ON Friday, the 2nd inst., Professor Huxley began his fourth Hunterian course of lectures, which is to terminate his account of the anatomy of the Mammalia. The last course (for 1865) was occupied with the Cheiroptera, Insectivora, Rodentia, Edentata, and Ungulata, terminating with an account of the remarkable *Macrauchenia*, which, uniting as it does so many characters of both the odd- and even-toed ungulates, is perhaps the most notable instance of the merely empirical nature of the laws of correlation of animal structure; while it is, together with *Glyptodon*, a striking exception to the paleontological generalization, that the comparatively recent species are more specialized in structure than are more ancient forms of life.

The lecturer, this year, began by stating that when the Greeks under Alexander became acquainted with North-Western India, they heard strange tales of the natural productions of that and of more distant parts, some of which continued to be received as truths for very many hundred years. One of these fictions, more or less founded on fact, was that the seas about Taprobane (Ceylon) abounded with creatures half man, half fish—the well-known mermaids. Now the singular dugong (*Halicore*) is at present, and was doubtless then, an inhabitant of that region; and though the creature, seen entire, has indeed little enough resemblance to the human form, yet having the habit of raising the anterior part of the body perpendicularly out of the water, and the females having protuberant pectoral mammæ and rounded heads, it scarcely required the proverbial imagination of sailors to see in them creatures of the mixed nature alleged; and though indeed by no means the "missing link" leading directly from man to fishes, the dugong nevertheless very interestingly connects aquatic with terrestrial mammals.

In the mammalia described in previous courses, there were terrestrial, subterranean, arboreal, and aërial forms, but none really aquatic; none, that is, actually incapable of living upon land, but all being, at least partially, terrestrial. The present

course, however, is to be largely occupied with mammals *absolutely* aquatic, the more typical forms even avoiding shallow water. These last—the whales—are commonly included with the dugong and its allies in one order, being distinguished from the latter as the *carnivorous* cetacea. By Illiger, however, the herbivorous forms (dugong, &c.) were placed in a distinct group, termed *Sirenia*—a separation which has been ever since more and more justified. But though the *Sirenia* are very distinctly separable from the true cetacea, they are, on the other hand, so closely allied to certain terrestrial mammals that De Blainville joined them with the elephants. The true cetacea have quite *another* affinity, as there is a series of forms which connect them with the carnivora, and lead from animals possessing a diffused placenta to others which have a zonary one. The *Sirenia* constitute one of the smallest orders of existing mammals, there being only two genera now actually inhabiting this planet—viz., *Halicore* and *Manatus*, though a third genus, *Rytina*, has only within the last 100 years been exterminated by man. An ancient form, *Halitherium*, existed in the tertiary epoch, and connected the *Sirenia* with ordinary ungulates.

The geographical distribution of the order (as is so often the case in fragmentary groups) is peculiar. *Halicore* is mainly confined to the shores which embrace the Indian Ocean, and to a little of the Pacific side of Australia. *Manatus* is exclusively Atlantic; and *Rytina* was found nowhere but on two islands on the extreme north-east of Asia.

Halicore has a very short neck, one pair of limbs enclosed in a continuous integument, so that the digits are not visible, though they can be felt; there are no nails. The thick skin has a few sparse hairs, which are large only on the muzzle. The end of the tail is expanded horizontally. Two nostrils open, very high up on the head, by semilunar apertures, and can be closed. The small eyes are surrounded by a circular fold of skin, which can be drawn over them by a sphincter. The tail is the main propelling organ; and its horizontal expansion assists the creature to rise to the surface for respiration. The cervical vertebræ are not, as a rule, anchylosed together; the eighteen or nineteen dorsal vertebræ have the usual structure; but, in the lumbar region, posterior articular processes are wanting, while the anterior ones fail to embrace the spines of the vertebræ in front of them, thus allowing much lateral flexion. One vertebra represents a sacrum, as from it are suspended the rudimentary pelvic bones, to which, in the male, the ischio-cavernous muscles are attached. The ribs, which are very dense, have both head and tubercle, and articulate with both the bodies and the transverse processes of the vertebræ. Three sternal ribs (generally ossified) unite with the sternum.

Reverting to forms described last year, the lecturer remarked that in the tapir the nasal bones are very short, the nasal passage rather vertical, the snout much prolonged, and the cranial cavity sub-cylindrical; that in the ruminants the frontal bones have prolongations roofing over the orbits, and the zygomatic process of the squamosal is largely developed. Now the dugong unites, more or less, all these characters. The occiput also slopes upwards and forwards (a character which is not so peculiar to aquatic mammals as has been represented), and the parietals separate the frontals from the occipital. In the great size of the premaxillæ *Halicore* differs from *Tapirus*, and agrees with the *Cetacea*, for they partly overlap the frontal. The lachrymal is small, but the zygomatic process of the squamosal is enormous, and in *Manatus* reaches its maximum in mammals, and sometimes also joins the frontal. The tympanic is anchylosed to the periotic, but to no other element of the skull—a cetacean character. The small bones of the ear are a physiological puzzle, for from the anchylosis of the *processus gracilis* of the malleus with the tympanic and the position of the stapes these bones cannot have (in this form at least) the function commonly ascribed to them. The mandible has a large ascending ramus and coronoid process, and a peculiar bent-down symphysis, with eight depressions like alveoli. The distal articular surface of the humerus has the normal structure, and the carpal bones are ossified, have articular surfaces, and a certain mobility. They are three in number, one representing the scaphoid and lunare, another being the cuneiform, and the third answering at once to the trapezium, trapezoides, magnum and unciform. The metacarpal of the fifth digit articulates with the cuneiform—a character commonly presented by aquatic mammals, and also found in Glyptodon, in which part of the fourth digit has also this connexion. Stannius alone has described the muscles of any member of this group: he says they quite resemble those of the porpoise—*e. g.*, in the enormous *panniculus carnosus*—a main agent in moving the limb. He also says that the forearm is as destitute of muscles as in the porpoise—a statement which, considering the structure of the limb bones, is so remarkable as to be all but incredible.

THE LANCET RECORD
OF
THE PROGRESS OF MEDICINE AND THE COLLATERAL SCIENCES.

THE EXISTENCE OF GLYCOGEN IN THE TISSUES OF ENTOZOA.

In an important paper published in the last number of the "Proceedings of the Royal Society," Michael Foster, M.B., states that he has found glycogen in the substance of the tapeworm and in that of the round worm of the pig (*Ascaris lumbricoides*). The most remarkable fact in connexion with this discovery is the circumstance that an animal which lives in a fluid whose especial quality is the conversion of starch into sugar, should, nevertheless, possess the power of amassing glycogen within its own body. There is no sugar-forming ferment in the bodies of the entozoa examined by Mr. Foster. From this fact the writer infers that, if the animal swallows the intestinal juice in which it lives, the sugar-forming ferment contained therein either does not pass through its intestinal wall into its visceral cavity, or, if it does pass, it is at once destroyed. It is evident that the formation of glycogen in the Ascaris takes place under conditions very different from those under which glycogen is deposited in the mammalian liver, since there is a powerful sugar-forming ferment in the latter.

THE AIR OF THE PYRENÉES IN THE CURE OF PHTHISIS.

In an essay written by M. Prosper de Pietra Santa, and published by MM. Baillière of Paris, we find the following statements:—1. The air of the Pyrenées at a height of 800 metres, and under a mean barometric pressure of 700 millimetres, (*a*) is less dense than common air; (*b*) contains a smaller proportion of oxygen; (*c*) is impregnated with a larger proportion of aqueous vapour; (*d*) contains more ozone than ordinary air. 2. This atmosphere is highly beneficial in chronic affections of the respiratory organs.

REGENERATION OF THE SPLEEN.

The views of M. Philippeaux, of which we gave an abstract in our last "Record," have been controverted by Signor Peyrani in a letter addressed to the French Academy, and read at the meeting held on the 9th of January. This physiologist asserts that the spleen is never regenerated after removal even of the greater portion of its mass. In a guinea-pig from which he had partially removed the spleen, he found the remnant (five months afterwards) hardened, but without the least alteration of form, size, or structure.

A NEW MEDICINE.

In the *Bulletin Général de Thérapeutique* (January 15th), M. Stanislas Martin describes a new medicinal substance under the title of *jurubeba*. Jurubeba is the term applied in Brazil to a plant called by botanists *Solanum paniculatum*. In South America the plant is used in the form of emplastrum, syrup, wine, tincture, and aqueous and alcoholic extract. It is chiefly employed in affections of the liver and spleen, in vesical catarrh, anæmia, chlorosis, and difficult menstruation. According to the testimony of several observers, this new drug promises to be the most powerful deobstruant yet met with. The jurubeba is sold commercially in the state of leaves, fruit, and roots. The latter vary in length from ten to fifty centimetres. They are covered with minute rootlets; their texture is hard and fibrous, the fibres being serrated. The stems of the plant are long and slender, and are studded with sharp-pointed prickles. The leaves attached to them have a fine green colour; they are without odour, and are nearly tasteless.

VITALITY OF THE LOWER ORGANISMS.

Some interesting experiments upon the vitality of the Kolpodæ (infusorial animalcules) were recently made by M. Victor Meunier, and the results have been published in the *Comptes Rendus* (Dec. 5th). M. Meunier has found, contrary to the belief of other observers, that the kolpodæ are soon killed by exposure to the temperature of boiling water. His experi-

ments were forty-one in number; and in fourteen of them portions of dust, containing kolpodæ in abundance, were boiled. Two mattresses containing kolpodæ were kept at 212° for ten minutes; eight were kept at 212° for five minutes; two were kept at 212° for two minutes; and two were removed from the flame the moment the water indicated a temperature of 212°. In all these experiments the encysted kolpodæ were destroyed.

DECOMPOSITION OF AIR BY THE TISSUES.

An essay on this subject was presented to the French Academy at one of its late sittings. The author, M. Demarquay, has examined the atmospheric air in all parts of the organism in the open and closed cavities, and in the normal and diseased conditions of the system. He draws from this investigation the general conclusion that air rapidly undergoes decomposition when in contact with the tissues, oxygen is absorbed and disappears, nitrogen is left unacted on, and carbonic acid is evolved. The influence of each of these constituents of the atmosphere has been carefully examined.

THE DEVELOPMENT OF THE INFUSORIA.

Some curious observations on the development of infusoria, which certainly demand confirmation before being accepted by zoologists, have recently been published by Mr. Jas. Samuelson. It is known that in vegetable infusions exposed to the air the first forms of animalcules which present themselves are of the lowest type (monads), and these are succeeded by higher forms. This phenomenon Mr. Samuelson thinks is only explained by the conclusion that the monadine form which first appears is the earlier or larval stage of at least one, if not more, of the ciliated infusoria, into which it becomes metamorphosed in the course of development. Mr. Samuelson has recorded several interesting experiments, and from some of them he concludes that the *Cerco-monades* are the larvæ or earlier forms of the ciliated animalcules which succeed them. He desires that other experimenters should repeat his observations, for, though he himself has perfect confidence in their accuracy, he is aware of the great liability to error in such a difficult pursuit.

THE PRODUCTION OF ANIMAL HEAT.

M. Berthelot advances some views which differ from the theory of Liebig relative to the source of heat in the body. His memoir has been published in the last volume of the "Mémoires de la Société de Biologie," and may be read with advantage by physiologists. The author thinks that the changes of *hydration* and *dehydration* which organic substances undergo are entirely concerned in the production of heat, and this view he considers of the more importance from the fact that most of the alimentary substances are capable of exhibiting phenomena of this kind. He arranges these substances in three groups—(1) the fatty matters, (2) the carbo-hydrates, and (3) the albuminoid substances. The albuminoid substances are *amides*, and as such give rise to heat by their hydration with decomposition, and their dehydration with combination. The hydrates of carbon (sugar, starch, &c.) produce heat by their decomposition alone, independently of all oxidation. Finally, the neutral fatty matters disengage heat by their decomposition and by simple hydration.

ERECTILE TISSUE.

According to the investigations of M. Charles Robin, this tissue has the following constitution:—1. A network of large capillaries dilated in such a manner as to form a species of blood reservoir, but having no resemblance to a true sinus. 2. Connected with this network is a series of arterioles, with thick muscular walls, and pursuing a peculiarly spiral course before they communicate with these capillaries. 3. The venules. 4. The areolæ formed by the interlacement of the capillaries are limited by bundles of fibres, which are chiefly composed of the white and yellow elements of the elastic tissue, mingled with cell-fibres, and in some instances nerve-tubes.

THE LAMINARY MEMBRANE OF THE PLACENTA.

In a series of papers in the *Archives Générales de Médecine*, M. Joulin last year gave a minute account of this structure. He considers that it is distinct from, and is therefore not to be confounded with, the chorion. It is composed of bundles of common fibres (which occasionally intersect, but are more usually parallel), fatty granules, and amorphous matter. None of the nuclei so characteristic of the structure of the chorion are to be found in it. It consists of two distinct layers—a superficial and a deep one: the former of extreme tenuity, the latter rather thick. It is devoid of proper vessels.

STRUCTURE OF THE RETINA IN REPTILES.

Mr. J. W. Hulke, who has written an able essay in the "Ophthalmic Hospital Reports" on this subject, gives the following as the arrangement of the parts in the retina of frogs, snakes, and turtles:—1. The layer of rods and cones (bacillary layer; Jacob's layer). 2. A layer of outer granules. 3. Intergranule layer. 4. Layers of inner granules. 5. Granular layer proper. 6. Ganglionic layer. 7. Optic-nerve layer.

THE ACCOMMODATION-POWER OF THE EYE.

In a paper on the Anatomy of the Seal's Eye, published in the January number of the *Dublin Quarterly Journal of Science*, Mr. Henry Wilson, F.R.C.S.I., revives the old theory of the action of the external muscles in altering the axis of the eye. He contends that the recti muscles by their pressure elongate the axis of the eye, and thus, by increasing the distance between the lens and the retina, in some measure provide for accommodation. He forgets that such an alteration, in order to be effective, should take place to an enormous extent (an inch or thereabouts); and that the action of the muscles would tend to shorten rather than elongate the antero-posterior diameter of the eye. His paper is full of interesting anatomical details, but it is to be regretted that he has not very carefully described the relations of the ciliary muscle.

PHYSIOLOGICAL ACTION OF IRON.

A new theory of the action of iron upon the system has been started by Herr Dr. Sasse, in a paper reported in Schmidt's *Jahrbücher*. This *savant* considers that the salts of iron replace, as it were, the blood-globules by acting as carriers of ozone. It is of no importance whether the iron be administered as an oxide, a per-salt, or a proto-salt; for, when once it has entered the circulation, it continually takes up and gives off ozone till it is expelled from the body. Dr. Sasse concludes that we have in iron a means of promoting the process of oxidation; but we should never administer this medicine except in cases where the process of oxidation is not sufficiently energetic. He considers that iron should not be employed in tuberculosis.

THE CIRCULATION IN THE LOWER ANIMALS.

At the meeting of the French Academy on the 18th of December, M. Lacaze-Duthiers pointed out some curious facts relative to the bloodvessels of certain molluska and zoophytes. He has found that the circulatory system of these animals is very different from that of the higher groups. The bloodvessels communicate with the atmosphere and with the stomach by direct apertures. Hence he concludes that it is unfair to extend to the higher animals generalizations which have been framed in accordance with the structure and functions of the lower ones.

Correspondence.

"Audi alteram partem."

THE PATHOLOGY OF PNEUMONIA.

To the Editor of THE LANCET.

SIR,—In your issue of the 20th inst. Dr. Wilks, in a manner worthy of his high character and reputation, expresses his opinion that "Dr. Clark, by an independent investigation, may claim the merit due to an original discoverer of the true pathology of pneumonia;" but, on the strength of several striking facts and ingenious arguments, insists that my views, independently formed, were quite forestalled by the investigations of the late Dr. Addison, of Guy's. To this letter I shall next week return a full reply. Meanwhile I have somewhat to say in answer to "Vigo," who writes in a different strain.

In so far as "Vigo" has for twenty years taught that there is no such thing as an interstitial or intervesicular exudation in pneumonia—for that is the point of the question at issue*—and in so far as he has made that knowledge his own by personal investigation, he deserves, and should have, such honour

* The mere doctrine that red hepatization is caused by the deposit of lymph in the air-cells was first taught by Andral in his Clinique Médicale; in his Path. Anat. he held that red hepatization was due to occlusion and not to intra-cellular exudation.

as is due to the teacher of a fundamental truth at a time when it was either positively or implicitly denied in every known treatise on the subject. But when, by a stroke of audacity on the one hand, and a touch of finesse on the other, he makes it appear that the answer to the question is not a matter of doubt, and then proceeds to poison the sources from which alone proofs of the contrary can be drawn, he commits an offence which is at once fatal to fair discussion and unpardonable in one who claims truth to be the object of his criticism.

The claim made is to priority in demonstrating the absence of an intervesicular structural product in pneumonia, the impossibility of its occurrence, and the fact that all the structural elements of the pulmonary alveolus are involved in the disease. "Vigo" remarks that the unopposed advancement of such a claim is likely to bring on English physiology and medicine the ridicule of scientific Europe, because he himself has taught these views for twenty years; because they are nowhere doubted except in works of Medicine many of which "partake of the character of advertisements," and cannot be appealed to for judgment; and because no modern respectable histologist asserts the presence of an intervesicular areolar tissue in the lung.

This phrase "scientific Europe," if it means anything beyond a euphuism, can mean only those persons who have investigated the pathological anatomy of pneumonia: for it is nowhere a characteristic of scientific men to ridicule what they do not understand; and if it were, the ridicule of persons knowing little or nothing of the subject at issue would be absurd. Now, Sir, with one or two apparent exceptions, to be specially dealt with in my next letter, I am prepared to prove that every one of those observers to whose works I have had access has either directly or by implication taught the existence of an interstitial or intervesicular exudation in some form of pneumonia. If then the ground upon which "Vigo" fears the ridicule of "scientific Europe" be the denial of this exudation because such denial is superfluous, that ground is wholly cut from beneath his feet.

Writers on normal histology generally pass over in silence the relation of the wall of the pulmonary alveolus to the structural products of pneumonia; and when they do speak of it, it is in such a manner as either to leave their meaning obscure or to admit of a double interpretation. But I have before me the work of Charcot on Chronic Pneumonia, published in 1860; and in this work Robin, pronounced by his antagonist Virchow to be the most accomplished histologist of France, expresses an opinion upon this point which cannot be misunderstood. In a description of the drawing, executed by Robin, which accompanies Charcot's book, an amorphous matter is represented as "filling the alveoli *and their interstices*;" and in the pathological part of the body of the work, written or inspired by the same histologist, the *intervesicular spaces* are spoken of (page 15) as having doubled or tripled their thickness, and as containing fusiform cells or connective tissue. The same idea of structural products lodging in the wall of the alveolus, or between the alveoli, will be found embodied at page 56, and in sundry parts of the paper by Isambert and Robin on Congestive Carnification (Mém. de la Soc. de Biol., 1855, p. 3). Thus, then, though Robin may not—but for aught that I know to the contrary he may—positively teach the existence of an intervesicular areolar tissue in the lung, neither can he nor his pupils discuss the subject of pneumonia without speaking of its structural products as lodging in the wall of the alveolus, or between the alveoli. Now these are two of the current views on this subject the accuracy of which I emphatically deny.

As the extracts which I have made from the works of various observers to prove their tacit or expressed belief in the existence of an intervesicular exudation in pneumonia are too voluminous for admission into your pages, it must suffice to give the chief references now, whilst I promise to publish the quotations in full hereafter. But I shall make two exceptions: one from the article on Pneumonia by Dr. Williams in the Library of Medicine, and the other from a chapter on the same subject in the Manual of Pathological Anatomy by Drs. Sieveking and Handfield Jones.

The article of Dr. Williams was published, it is true, in 1840, but then the views therein expressed upon the subject of intervesicular exudation are incidentally endorsed in various parts of the last edition of his Principles of Medicine.

Here is what Dr. Williams says:—"From many minute examinations which we have made we have been long convinced that the granulations of hepatized lungs contain no appreciable quantity of viscid mucus, but that they are probably portions of vesicles and minute tubes, with their tissues distended, with an interstitial deposit of lymph, and occasionally having the same matter in their interior.....But hepatized lungs do not always present this granulated appearance: sometimes there is a uniform condensation of a deeper red than usual.....We are disposed to view this.....kind of hepatization as the result of inflammation confined more to the plexus of vessels and *intervesicular tissues*, and less affecting the membranes forming the cells.....The recent researches of Hourman and Dechambre on the pneumonia of the aged confirm this view.....*Having been the first to describe the latter as a separate form of pneumonia, we prefer the term intervesicular.*"—*Library of Medicine*, vol. iii., p. 138.

Here is what Drs. Sieveking and Handfield Jones say:—In pneumonia "the exudation takes place both into the interstitial and into the intervesicular spaces according to the laws regulating the exosmosis of inflamed vessels. The condensation that takes place in the tissues in pneumonia, and the form of deposit, is of a very different character from that occurring in tubercular disease, and would alone serve to prove that the exudation takes place both within and external to the air-vesicles. The consolidation of pneumonia does not produce any material change in the form of the vesicular structure, which continues to present its globular form even in the third stage. Now, if the exudation took place exclusively within the vesicles their mutual compression would produce polyhedral forms, while the exclusive effusion external to them would not only obliterate them but entirely destroy all trace of them. As it is, we continue to trace their form because, the extra- and intra-vesicular effusions being tolerably uniform, the pressure is equable."—*Path. Anatomy*, p. 425.

Here, lastly, follow a few references to the works of recognised observers, who tacitly or expressly teach the existence of an intervesicular structural exudation in pneumonia:*—Lebert: Anat. Path., vol. i., pp. 644, 647. Grisolle: Traité de la Pneum., 2nd edit., pp. 15, 19. Walshe: Diseases of the Lungs, 3rd edit., pp. 350, 360. Rokitansky: Path. Anat., vol. iv., p. 90, to be read along with what is said of tubercle at p. 102. Hasse (who, however, is very close upon the exact truth): Path. Anat., pp. 220, 288. Niemeyer (and Virchow as quoted by him): Pathol. Interne, traduc. de l'Allemand, t. i., p. 240. Aitken: Prac. of Med., 2nd edit., vol. ii., p. 831; also author of an original memoir on Pneumonia. Gross: Path. Anat., p. 418. Betz: Bullet. des Acad., 1850. Foerster: Path. Anatom., art. Pneumonia Int. Cornil: Pneumon. Parenchym., Rec. des Travaux de la Soc. Méd. d'Observat., fas. 12, p. 750. Gunsburg: Die Path. Gewebelehre, vol. i., p. 59. Wedl: Path. Histology, p. 251. Merchie: Leçons Cliniques, Jour. de Méd. de Brux., Oct. 1864.

Perhaps "Vigo" may now find it convenient to reply that these are not respectable authorities, and that their works partake of the character of advertisements. If he will not say as much of his countrymen and contemporaries, Drs. Williams, Sieveking, and Handfield Jones, whose views I have quoted at length, then why, in the name of honour and consistency, has he, so long in possession of an important truth, abstained from resenting its violation by these observers? Had he not greater reason to speak to them than to me. Surely, Sir, it is much more ridiculous to claim credit for a discovery which has no existence, than—to say the least—for the clear statement and confirmation of a truth which has hitherto been obscurely expressed and imperfectly understood.

I might now proceed to show that "Vigo" has missed the point of the question at issue, and to define the part he has played in this discussion; but I have already exhausted more than my share of your space, and so must needs terminate this part of my subject, and leave "Vigo" for the present under the protection of his mask.

I have the honour to be, Sir, your obedient servant,

ANDREW CLARK.

Montague-place, Russell-square, Jan. 30th, 1866.

DR. MOREHEAD ON CHOLERA.

To the Editor of THE LANCET.

SIR,—I observe that Dr. Morehead objects to two statements of mine in reference to cholera. Permit me to say a few words in reply.

1. Dr. Morehead says that my statement that "general feebleness of health gives no predisposition" to cholera is a

* I regret that these references are so few, and in some respects so imperfect; but I have been prevented from extending or completing them by the effects of an attack of hæmoptysis, which still forbid any lengthened labour in this direction. Unacquainted with German, references to works in that language are made at second hand.

"grave etiological error." Feebleness of health increases mortality, but I have very strong evidence that it does not increase the liability to attack. In two epidemics in a European regiment in India, I collected facts with a view to this very point. I knew the exact state of health of most of the men, women, and children who were and who were not attacked, and when I did not know it, I carefully inquired. In every fatal case, also, I tried to trace out after death any possible disease which might have weakened health. I found often the strongest and healthiest men attacked; while sickly and feeble men escaped. In the post-mortem room I could find no antecedent diseases, nor signs of previous ill health, in those who died, except some undecided evidence of pre-existent pulmonary emphysema.

Now certainly I had a large basis of facts; my opportunities of forming an opinion were extremely good; I took much trouble to come to a right conclusion; and though I have the greatest respect for Dr. Morehead's opinion, I must still maintain the accuracy of my observations. If Dr. Morehead will do me the favour of looking at my book on Cholera, published in 1847, he will find these facts referred to at page 195 *et seq.*

After I had come to this opinion, contrary certainly to my previous bias, I asked everyone I met, whose opinion I valued, what their experience had taught them respecting the previous condition of health of those attacked by cholera. I not only found that the majority could trace no connexion between general feeble health and liability to cholera, but some army surgeons even told me they were sure their strongest men were most frequently attacked. I then turned to the literature of cholera, and, although the question has never been examined with the interest it deserves, I could nowhere find any trustworthy evidence to prove that weakly persons are most liable. In fact, I believe that it is chiefly the amount of exposure to the cause which determines the ratio of attacks, and that neither vigour nor feebleness of body has any influence in predisposing to the reception of the poison. I do not, however, deny that there is probably a peculiar predisposition, but this is not connected with general feeble health.

2. The second point on which I have the misfortune to differ from Dr. Morehead is my recommendation to treat cholera patients in tents, when it can be done. Of course, I presume that an hospital made of tents is as well organized and supplied, and is kept in as good discipline, as any fixed hospital. Now a tent has these great advantages: there can be any amount of ventilation, that most important point in the treatment of cholera; isolation is more easy; the discharges are more easily disposed of; and the tents can be shifted from time to time. On the other hand, in the ward of an hospital perfect ventilation is impossible, at least I have never seen any hospital in any part of the world which could compare with a good tent; and everything becomes contaminated—floors, walls, and furniture.

There are other reasons, connected with the derangement of the ordinary service of an hospital when cholera patients are brought in either to the general or to separate wards; but I place my case on the advantages of tents to the cholera patients themselves. The evidence of Lévy on this point is quite conclusive.

In India the great practical rule of late years has been, to get out of the cholera localities; but Dr. Morehead's remarks seem to me intended to throw doubt on the propriety of this important regulation. I cannot think him correct in referring to the Army Reports for proof that Sir Hugh Rose's order has been productive of injury by increasing the mortality in those attacked. He refers to the outbreak in the 92nd Highlanders at Peshawur; but surely he does not mean to ascribe the severity of that attack to the influence of the tents. The localities were to blame in that instance, and when the regiment found a proper camp, and especially when they crossed the Indus, they shook off the disease.

I esteem Dr. Morehead's instructions very highly, but I am surprised, and indeed grieved, that he should have said nothing about the disposal of the cholera discharges. Whatever may be his views on the propagation of cholera by those discharges, he must admit that, as prudent men, we are bound to take the easy precaution of adding certain of the so-called disinfectants to every cholera discharge, and to avoid with the greatest care all chance of these discharges putrefying about our houses. For my own part, I am not speaking too strongly when I say that I should consider it criminal in anyone to neglect this precaution, in the face of the evidence which the last few years have given us. So also I think Dr. Morehead has spoken too lightly of the occasional influence of water in spreading the disease, and has not sufficiently pointed out the necessity of obtaining a perfectly pure supply of water. The subject is of such moment that I feel it a matter of duty to say thus much, even though I may possibly run counter to the opinions of so great an authority on Indian diseases.

I am, Sir, your obedient servant,

Netley, Jan. 22nd, 1866. E. A. PARKES.

POOR-LAW MEDICAL REFORM.

To the Editor of THE LANCET.

SIR,—I shall feel obliged by your giving insertion to the annexed letter, that the Poor-law medical officers may be made acquainted with the steps taken towards an improvement in the medical relief of the poor.

Since the last list of subscriptions was published, I have received the following:—S. B. Bucknill, Rugby, 10*s.* 6*d.*; L. O. Fox, Stockbridge, 10*s.*; N. B. Turner, Sutton &c., 5*s.*; R. Roe, Barton-on-Irwell, 20*s.*; D. Dorning, Barton-on-Irwell, 20*s.*; T. O'Reilly, Ware, 10*s.*; C. Sedgewick, Hollingbourne, 10*s.*; W. F. Giles, New Forest, 21*s.*; H. Bencroft, Southampton, 10*s.* 6*d.*; G. Cheeseman, Southampton, 10*s.* 6*d.*; R. W. W. Griffin, Southampton, 10*s.* 6*d.*; L. A. Lawrence, Southampton, 10*s.* 6*d.*; T. Wiblin, Southampton (not union), 10*s.* 6*d.*; J. Tweddle, Cockermouth, 10*s.* 6*d.*; T. J. Nason, Stratford-on-Avon, 10*s.* 6*d.*; J. B. Nevin, Liverpool (not union), 10*s.* 6*d.*; J. W. F., 10*s.*; H. Taylor, Guildford, 10*s.*; O. Foster, Hitchin, 10*s.*; W. W. Colbourne, Chippenham, 21*s.*; J. Crisp, Chippenham, 5*s.*; A. Ludlow, Castle Coombe, 10*s.*; E. C. Buckoll, Radford, 5*s.*; F. Turtle, St. George-in-the-East, 5*s.*; J. Taylor, Banbury, 5*s.*; G. M. Ashworth, Oakham, 5*s.*; P. Dicken, Ashby-de-la-Zouch, 5*s.*; T. O. Walker, Towcester, 5*s.*

Mr. Prowse, of Amersham, has received the following:—Mr. Barker, Aldershot, 10*s.*; F. E. G. Bywater, Pontefract, 10*s.* 6*d.*; H. Meymott, Ludlow, 5*s.*; G. Pink, Petersfield, 5*s.*; S. Knaggs, Huddersfield, 5*s.*; F. Davies, Pershore, 21*s.*; I. Reddrop, Tiverton, 5*s.*; H. E. Norris, Bridport &c., 5*s.*; R. P. Weston, Wellington, 10*s.*; J. L. Thomas, Carmarthen, 5*s.*; C. Holtom, Stoke-on-Trent, 5*s.*; J. Pearson, Cockermouth, 5*s.*; W. W. Morgan, Newport, 10*s.* 6*d.*; O. C. Jennings, Newport, 5*s.*; G. Harday, Rugby, 10*s.*; L. R. Raymond, Bromsgrove, 5*s.*; G. W. Rhodes, Huddersfield, 10*s.* 6*d.*; R. M'Lachlan, Halifax, 10*s.*; J. T. Savory, Wycombe, 5*s.*; C. Spurgeon, Samford, 5*s.*; W. Few, St. Ives, 5*s.*; J. S. Muriel, Cosford, 5*s.*; H. P. Leech, Stow, 5*s.*; E. P. King, Chepstow, 5*s.*; P. T. Dean, Upper Norwood, 5*s.*; A. Kingdon, Bideford, 5*s.*; J. M. Kendall, King's Lynn, 5*s.*; J. W. Newington, Cranbrook, 10*s.* 6*d.*; O. N. Royle, Kendal, 10*s.* 6*d.*; J. R. Elliott, South Molton, 10*s.*; W. Whitehead, Mansfield, 10*s.* 6*d.*; R. M. Lipscombe, Berkhampstead, 5*s.*; W. Pilkington, Blackburn, 21*s.*; H. Marley, Columb St. Major, 5*s.*; C. S. Hall, Carlisle, 5*s.*; W. Pritchard, East Retford, 10*s.* 6*d.*; R. Organ, Barwick, 5*s.*; R. S. Davison, Castle Ward, 21*s.*; J. Breach, Bradfield, 10*s.*; H. Raines, East Retford, 10*s.*; M. Cook, Barnstaple, 10*s.*; J. Blackshaw, Stockport, 5*s.*; W. A. Buée, Eton, 5*s.*; W. F. Brooks, Wye, 10*s.*; John Bowes, Blean, 10*s.* 6*d.*; W. Clark, Epsom, 10*s.* 6*d.*; J. Wilton, Ash, 10*s.* 6*d.*; R. O. Blythman, Rotherham, 10*s.*; W. C. Arnison, Hexham, 7*s.* 6*d.*; W. Montgomery, Haltwhistle, 5*s.*; Mr. Hewitson, Hexham, 7*s.* 6*d.*; J. Chapman, Brentford, 20*s.*; Mr. Brodie, Bellingham &c., 5*s.*; B. E., 10*s.*

I am, Sir, yours &c.,

Feb. 5th, 1866. RICHARD GRIFFIN.

12, Royal-terrace, Weymouth, Feb. 3rd, 1866.

Sir,—Since the commencement of this year a large number of Poor-law medical officers have sent their subscriptions to enable me to defray the necessary expenses consequent upon an application to be made to Parliament, and the printing of a pamphlet, to be sent to each member of the House of Commons, demonstrating the necessity of a thorough revision of the present wretched system of medical relief of the poor. But prior to this procedure, I feel I should best consult the interests of all parties concerned by laying before you, as the head of this great department—which has annually under its management over a million and a quarter of sick poor,—the draft of a Bill which it appears to me would, if passed, be of national advantage; and if you would take charge of it, or of one of similar import, and introduce it into the House of Commons, or make it a part of your new Poor-law Continuance Bill, I feel sure you would immensely benefit the public. That you may have knowledge of the sentiments of the Poor-law medical officers on this subject, I request you will permit such of them as can spare the time to wait upon you as a deputation; and if you

will fix a time, giving me a clear fourteen days' notice, I will call them together for the purpose. And should you, in the interval, desire a private interview with me relative to any arrangements, I will gladly wait upon you any day you may fix.—I have the honour to be, Sir, your obedient servant,

The Right Hon. C. P. Villiers, M.P., President of the Poor-law Board. RICHARD GRIFFIN.

Parliamentary Intelligence.

HOUSE OF COMMONS.

FEBRUARY 6TH.

Sir G. GREY brought up, by command of Her Majesty, the first report of the Commission appointed to inquire into the origin and nature of the cattle plague, and also the report of the Capital Punishment Commission.

Sir G. GREY gave notice that on Monday next he should move for leave to bring in a Bill relating to the contagious and infectious diseases existing among cattle.

Mr. CHILDERS gave notice that on Monday next he should move for leave to bring in a Bill relating to the improvement of the dwellings of the labouring classes.

Mr. TORRENS gave notice that on Tuesday, the 20th inst., he should move for leave to bring in a Bill to make better provisions in the laws relating to artisans and labourers.

Mr. DOULTON gave notice that on the 13th inst. he should ask the Home Secretary if it were the intention of her Majesty's Government to introduce early in the present Session a Bill having for its object the preservation of the commons and open spaces round London.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the 8th inst.:—

Guy, Thomas, Doncaster; diploma of Membership dated July 2nd, 1841.
Harris, Clement Mears, Wootton-under-Edge; Dec. 21st, 1838.
Rowe, Charles Reynolds, Wimborne Minster; June 1st, 1835.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 1st inst.:—

Adams, Josiah Oake, Plymouth.
Bury, Henry Charles, Whetstone, N.
Grace, Edward Mills, Downend, Bristol.
Rundle, Henry, Plymouth.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, EDINBURGH: DOUBLE QUALIFICATION.—The following gentlemen passed their final examinations during the recent sittings of the examiners, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

Anderson, Colles Litchford, Madras.
Grier, William John, Co. Longford.
Hackett, Arthur Lake, Cork.
Holmes, William Hugh, Cork.
Johnstone, Howison Jas., Co. Longford.
Jones, David Joshua, Carmarthenshire.
Leon, James, Ceylon.
M'Kenna, Cornelius John, Tipperary.
Miller, Lewis, Dublin.
Parke, Samuel, Gilford.
Pattie, Robert, Dumfriesshire.
Ritchie, Alex. Ramsay, Edinburgh.
Thompson, Thos. Alex., Carrickfergus.
Wylie, William, Poyntzpass.

And the following gentlemen passed their first professional examinations:—

John Kerr Davidson, Wick; Edward E. Purcell, Limerick; Henry Bath, Glastonbury; Richard Young, New Lanark; John Riddle, Ballybay.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their final examinations during the recent sittings of the examiners, and were admitted Licentiates of the College:—

Douglas, John Charles, Wigtownshire.
Greene, William Thomas, Dublin.
Turnbull, G. Wardlaw, Linlithgowshire.
Walsh, John Aloysius, Carrick-on-Suir.
Wright, John, Derbyshire.

And the following gentleman passed his first professional examination:—

Rolt Ayre Smith, Monkwearmouth.

DR. DU BOIS-REYMOND, Professor of Physiology in the University of Berlin, will deliver a course of lectures at the Royal Institution on "Muscular Action;" and also a Friday evening lecture on the "Velocity of the Nervous Agent."

DORSET COUNTY HOSPITAL.—The Prince of Wales has consented to become the patron of the Dorset County Hospital.

A NEW ANÆSTHETIC.—The bichloride of carbon, which closely resembles chloroform, has been recently described by Sir James Y. Simpson.

SUICIDE BY AMMONIA.—On Wednesday last an inquest was held on the body of a Mrs. Sevin, who destroyed herself by swallowing a large quantity of spirits of ammonia.

DR. RICHARD SCHOMBURG, brother of Sir Robert, has been appointed director of the Botanic Garden of Adelaide, South Australia.

ABOLITION OF CAPITAL PUNISHMENT IN BELGIUM.—An important association, consisting of all parties, has been formed in Belgium for the abolition of capital punishment.

MUNICIPAL GRATITUDE.—Fourteen military medical officers have received from the municipality of Ancona silver medals as a recognition of their services during the direful epidemic of cholera which raged in that city.

ANOTHER Fellowship for the University of Edinburgh has been founded by Mr. James Guthrie, of London, and is of the annual value of £100, tenable for a period not exceeding four years.

THE QUEEN'S PHYSICIAN AND THE OPENING OF PARLIAMENT.—Orders were given to the police, on Tuesday last, to permit the carriage of Dr. Jenner to follow in the Royal procession *en route* to the opening of Parliament by the Queen.

THE EMPRESS EUGENIE.—The Empress of the French has expressed the strongest feelings of dissatisfaction at the state in which she found the dwellings inhabited by the female lunatics at Charenton; and has uttered a hope that the Corps Legislatif will vote the requisite funds for new buildings.

THE cattle plague is committing fearful ravages in the Principalities. 315 oxen and 550 buffaloes have been carried off in the district of Varna. In the district of Rustchuk the mortality is estimated at 5064 oxen and cows, 525 buffaloes, 9986 sheep and goats, and 224 pigs.

THE CHOLERA CONFERENCE.—Dr. Goodeve is to be the English medical colleague of the Hon. W. Stuart; Salih Effendi, director of the Medical School at Koombarhané, and Dr. Bartoletti, member of the Board of Health, to represent the Porte; Drs. Pelikau and Bykow and Mr. Lintz to represent Russia; Drs. Greisinger and Herch to be the Prussian representatives; and Dr. Salvatore, with the Chev. Jerponi, first dragoman of the Italian Legation.

SURGEONS "IF REQUIRED."—We notice in the *Pall-mall Gazette* that the *Westburn* and *Lady Octavia* passenger ships are advertised to sail for Sydney, and it is stated they will carry experienced surgeons "if required." The *Pall-mall* goes on to inquire, "What does this mean? Who is to require them to carry the experienced surgeons? And if they do not carry them, and if evil ensue, what redress will the passengers have?"

INDIAN BRANDEE.—A child, named Emma Longfellow, aged eight weeks, died at Leeds from the effects of a pennyworth of Indian brandee administered to her by her mother as a cure for diarrhœa. Mr. Brameld, surgeon, stated that the "Indian brandee" is a most pernicious article, being composed partly of naphtha. The inquest held on the child was adjourned in order to have the "brandee" analysed.

ANDERSON'S UNIVERSITY—APPOINTMENT OF PROFESSOR.—A *pro re nata* meeting of the trustees of Anderson's University was held on Wednesday in the Philosophical Society's Hall, when an unusually large number of trustees attended. The object of the meeting was to appoint a Professor of the Practice of Medicine, in the room of Dr. J. H. Cowan, now professor in the Glasgow University. The candidates for the chair were Dr. Thos. M'Call Anderson, a grand-nephew of the founder of the University, and Dr. P. A. Simpson. Mr. William Euing, president of the managers of the University, on taking the chair, announced the object of the meeting, and read a letter from Dr. Simpson, who, in deference to the high professional talent of the other candidate, and the fact of his being a relative to the founder, requested that his name should be withdrawn from the list of candidates. The announcement was received with applause. Mr. Smith, of Jordan-hall, then in warm terms proposed the appointment

of Dr. Anderson, which was seconded by the Rev. Dr. Craik in a highly eulogistic speech. On a ballot being taken, Dr. Anderson was unanimously elected.

THE QUEEN'S SPEECH AND THE CATTLE PLAGUE.—In the Speech from the Throne, the following passage occurs, the only one relating to sanitary matters:—"I have observed with great concern the extensive prevalence, during the last few months, of a virulent distemper among cattle in Great Britain, and it is with deep regret, and with sincere sympathy for the sufferers, that I have learnt the severe losses which it has caused in many counties and districts. It is satisfactory to know that Ireland and a considerable part of Scotland are as yet free from this calamity, and I trust that by the precautions suggested by experience, and by the Divine blessing on the means which are now being employed, its further extension may be arrested. The orders which have been made by the Lords of my Privy Council by virtue of the powers vested in them by law, with a view to prevent the spreading of this disease, will be laid before you, and your attention will be called to the expediency of an amendment of the law relating to a subject so deeply affecting the interests of my people."

SCIENTIFIC REPORT ON THE TRICHINA.—The Prussian Government had entrusted investigations on the nature and mode of propagation of the trichina to Professor Kühne, of Halle, and zealously were they pursued from 1863 to 1865. The report has been sent in, and states, among other things, the following particulars:—Pigs affected with trichinæ do not present symptoms sufficiently obvious to be recognised by breeders. It was therefore incumbent on the reporter to elucidate facts connected with diagnosis. Animals were for that purpose fed with meat full of trichinæ, and daily watched by veterinarians. The latter could hardly detect any change in the health of the animals, nor did slight indispositions present anything which could be construed into a pathognomonic symptom of the disease, yet it was proved by post-mortem examination that trichinæ had formed in large masses in the muscles of the animals. Hence the breeder cannot be expected to recognise the existence of the malady, nor should he be punished as having sold diseased meat. No difference of race, sex, or age creates a greater or less aptitude to be invaded by the trichinæ. It is not true, as has been asserted, that trichinian disease is produced by feeding pigs with beetroot, by the ingestion of earthworms, or of moles containing trichinæ. The investigators have found that the parasites of the beetroot and the moles are not identical with the trichinæ which infest the pig. Not so, however, with rats and mice, which are sometimes devoured by pigs. Cats also may be thus contaminated: the latter are especially susceptible. It is therefore important to prevent pigs from eating dead animals. It is very likely that foxes and weasels may be very dangerous in this respect, but it is plain that pigs can but seldom feed upon them. Dogs are also very liable to breed trichinæ, but birds are quite insusceptible. Trichinæ, which have passed into the stomach of pigs with their food, are therein completely destroyed; hence it may be inferred that the fæcal matter of diseased animals is not noxious. The culinary precautions to be held in view when cooking pork are the following:—The process of boiling or roasting should be carried on with the greatest care. People should not partake of any meat that has not been sufficiently cooked, and avoid such roast pork the centre of which still presents traces of blood. By salting and smoking ham for about ten days, the trichinæ are quite destroyed.

THE LATE JOHN GIBSON, R.A.—It is said that this distinguished sculptor's career was near being curtailed by an Italian surgeon persisting in bleeding him, notwithstanding the strong opposition of Dr. Topham, an English gentleman practising in Rome, whose objections to the operation received confirmation from Mr. Solly, of St. Thomas's Hospital, in reply to a telegram sent to him by one of the devoted ladies in attendance on the great sculptor.

REMOVAL OF PERSONS WITH FRACTURED LIMBS.—An inquest was held a few days ago at Wantage, on the body of an old man who had died from the effects of compound fracture of the leg. The deceased had been removed some distance in a cart by order of the relieving officer, in the absence of the surgeon of the union, who gave it as his opinion that the removal, under the circumstances, had accelerated if not caused the death of the deceased. After a long deliberation, the jury found the following verdict: "Accidental death, and that great blame attaches to the relieving officer for removing the deceased prior to his having been seen by the medical officer."

TESTIMONIAL TO A SURGEON.—A public meeting was held on the 25th ult., at Milford, to present a testimonial to Mr. H. Byers, a surgeon of that place. Mr. Byers had been upwards of fifty years in practice in that town, and had won the esteem and gratitude of all classes of persons. The testimonial consisted of a richly ornamented flower vase and a purse of 100 sovereigns. There was a dinner in the evening, which was attended by a great number of gentlemen in the neighbourhood, the chair being occupied by Colonel Greville.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—The thirty-eighth annual general meeting of the governors of this institution was held on the 1st inst. in the board-room of the hospital. The report showed that the year 1865 had been a most prosperous one, the receipts having reached the sum of no less than £1507 7*s.* 6*d.* in annual subscriptions, and £3011 2*s.* in donations, which sums, including £569 7*s.* 8*d.*, the profit on the anniversary festival last May, presided over by the treasurer, Edward Masterman, Esq., with £6804 14*s.* 2*d.* in legacies, made altogether a sum of £11,323 3*s.* 8*d.*; thus enabling the committee to clear off all the loans and debts of 1863 and 1864, leaving the hospital in debt only for the balance of the expenditure of 1865. The number of patients admitted during the year was 75,506 out-patients and 1415 in-patients, of whom 414 were cases of severe accident, making a total of 76,921 individuals who received the benefits of this charity in 1865. The expenditure stood—for the year 1865, £6831 4*s.* 10*d.*; paid loans incurred in 1863 and 1864, £2588 7*s.* 3*d.*; paid old debts of 1864, £1886 16*s.* 3*d.*; ditto of 1863, £295 19*s.* 10*d.*; making a total of £11,602 8*s.* 2*d.*

THE ARMY AND NAVY MEDICAL SERVICES.—At a numerous meeting of the Irish Medical Association, held at the Limerick Junction on the 28th of December last, the following resolution was passed unanimously:—Moved by Dr. Chapman, Surgeon to the County Infirmary, Kildare; seconded by Dr. Martin, Portlaw, County of Waterford, "That while professing our sympathy with the medical officers of the army and navy in the grievances under which they have so long suffered, we venture to express our strong hope that the Royal Commission now sitting will see that in not disappointing the just expectations of our brethren who are engaged in these branches of the public service they will best promote the interest of the service and the country." This resolution was forwarded to Lord de Grey and the Duke of Somerset by Dr. Mackesy, President of the Association, with an appropriate letter. An answer acknowledging its receipt was returned by Lord de Grey; the Admiralty have not yet responded.

GRATIFYING TRIBUTE TO THE RETIRING HOUSE-SURGEON, BELFAST GENERAL HOSPITAL.—At the last special meeting of the Life Governors and General Committee, the Lord Bishop of Down and Connor and Dromore in the chair, supported by the mayor and a large number of the gentry of the surrounding neighbourhood, the report of the Board of Management was read and unanimously adopted; it contained the following paragraph:—"The committee cannot conclude this report without expressing the high opinion they entertain of the services rendered to the hospital by Dr. David Nevin Moore, who is now about to resign his trust as house-surgeon. Whether as regarded his unwearied and skilful professional services, his great kindness and uniform attention to the patients under his charge, his successfully carrying out the directions of the medical staff in the treatment of the cases, or his conduct as a gentleman, all bear one common testimony to his professional skill, and to his zeal, assiduity, and courtesy while he had charge of the hospital, and which have so largely contributed to its usefulness."

WORKING PEOPLE AND THEIR SANITARY COMPLAINTS.—The *South London Chronicle* says many poor working people submit to health-destroying nuisances in their houses rather than complain to the proper sanitary officer, for fear of offending their landlords, who are too much addicted to raise the rent, give notice to quit, or make themselves generally disagreeable to an unfortunate tenant who "brings the Sanitary Inspector down on them." This matter has been brought before the Working Men's Club and Institute Union, and a proposal is about to be made to the committee of the various clubs that they should take upon themselves officially the task of representing in the proper quarter the complaints of individual members, and thus screen the poor man, who wishes for himself and family to be wholesome and cleanly, from the persecution of a landlord who cares for nothing but how much money he can get out of the filth and disease inflicted upon the unfortunate tenant.

MEDICAL VACANCIES.

Carmarthenshire, Cardiganshire, and Pembrokeshire Lunatic Asylum—Assistant Resident Medical Officer.
Dorset County Lunatic Asylum—Assistant Medical Officer.
North Staffordshire Infirmary—Physician, vice Dr. Gooday, resigned.
Nottingham General Hospital—Assistant House-Surgeon.

MEDICAL APPOINTMENTS.

T. M'C. Anderson, M.D., has been appointed Professor of the Practice of Medicine in the University of Glasgow, vice J. B. Cowan, M.D., appointed Professor of Materia Medica in the same University.

Mr. W. C. Bland has been appointed Assistant to the House-Surgeon at the Huddersfield and Upper Agbrigg Infirmary, vice W. F. P. Davis, M.R.C.S.E., resigned.

R. Brennan, M.R.C.S.E., has been appointed Resident Surgeon to the Birmingham and Midland Counties Lying-in Hospital and Dispensary for the Diseases of Women and Children, vice H. J. Branson, M.R.C.S.E., resigned.

W. Gradwell, L.R.C.P.Ed., has been elected Medical Officer and Public Vaccinator for the Lytham District of the Fylde Union, Lancashire, vice D. Niddrie, L.R.C.S.Ed., resigned.

E. C. Hammond, M.R.C.S., has been appointed Honorary Surgeon to the Wallasey Dispensary, Egremont, Birkenhead.

R. Kirkby, L.K.Q.C.P.I., has been appointed Surgeon to the Constabulary, and Medical Officer to the Banagher Dispensary District, of the Parsonstown Union, King's County, vice W. B. Tarleton, L.R.C.S.I., deceased.

R. H. Newett, L.R.C.S.Ed., has been elected House-Surgeon and Superintendent of the Belfast General Hospital, vice Moore, resigned.

G. E. Pocock, M.R.C.S.E., has been appointed Consulting Surgeon to the Brighton and Hove Dispensary.

Arthur Sarjeant, F.R.C.S.E., has been elected Medical Officer for the Bishopstone District of the Wilton Union, vice A. Gordon, M.D., resigned.

T. B. Skelton, M.R.C.P.Ed., has been elected Medical Officer, Public Vaccinator, and Registrar of Births, Marriages, and Deaths for the Tempo Dispensary District of the Enniskillen Union, Co. Fermanagh, vice B. G. Graham, M.R.C.S.E., resigned.

Mr. E. J. Sykes has been appointed Dispenser to the Devonshire Hospital and Buxton Bath Charity, Buxton.

A. Tuxford, M.D., has been appointed Medical Officer to the Boston Local Government Board.

Births, Marriages, and Deaths.

BIRTHS.

On the 24th ult., at St. Helens, Lancashire, the wife of Edward P. Twyford, M.D., of a daughter.

On the 24th ult., at Maryport, the wife of J. N. Williamson, M.D., of a daughter.

On the 26th ult., at Mount-street, Grosvenor-square, the wife of H. G. Houghton, M.D., of a daughter.

On the 29th ult., at Wandsworth, the wife of G. E. Nicholas, M.D., of a son.

On the 3rd inst., at Thornhall, Polmont, Stirlingshire, the wife of Robert Moffat, M.D., of a daughter.

On the 3rd inst., the wife of Dr. Eames, of H.M.'s Ship "Gladiator," of a daughter.

On the 5th inst., at Pix Hall, Hawkhurst, the wife of Dr. W. M. Harmer, M.R.C.P., of a daughter.

MARRIAGES.

On the 25th ult., at the Parish Church, Warrington, John H. Gornall, Surgeon, to Mary, youngest daughter of the late John Guest, Esq., of Warrington.

On the 30th ult., at Hanwell, Henry Maudsley, M.D., of Queen Anne-street, to Anne Caroline, daughter of John Conolly, M.D., of Hanwell.

On the 31st ult., at Lowestoft, Suffolk, John Shepheard, M.R.C.S.E., of North Walsham, Norfolk, to Fanny Olivia, youngest daughter of the Rev. E. Wymer, Rector of Westwick, in the same County.

On the 1st inst., at St. Thomas's, Heaton Norris, H. Stanley Gale, M.B., of London, to Miriam Driver, the adopted daughter of the late Samuel Benison, of Heaton Norris.—No Cards.

DEATHS.

On the 20th of Nov., by drowning, E. M'Sorley, M.R.C.S.E., Surgeon H.M.'s Ship "Rattler," at Nagasaki, Japan, aged 36.

On the 11th ult., lost at sea, in the Steam-ship "London," of which he was 1st Officer, Arthur Wm. Ticehurst, the eldest surviving son of Frederic Ticehurst, Surgeon, Mayor of Hastings, aged 27.

On the 16th ult., suddenly, at Morland, Westmoreland, George Fothergill, L.S.A., aged 60.

On the 22nd ult., at Walton-on-the-Naze, Essex, Grace Loe, wife of Charles Loe, Surgeon, of Birmingham, and mother of J. S. Loe, Surgeon, of Leeds, aged 58.

On the 22nd ult., T. Crosse, M.R.C.S.E., of Thorverton, Devon, aged 68.

On the 26th ult., at Brighton-park, Clifton, John Morton, late Superintending Surgeon Madras Medical Service.

On the 28th ult., at Eccleshall, Staffordshire, of apoplexy, Arthur Neville Hawthorne, F.R.C.S., aged 46.

On the 28th ult., at St. George's-terrace, Sheffield, Henry G. M. Allanson, M.D., M.R.C.S., Lecturer on Anatomy in the Sheffield Medical School, aged 37.

On the 29th ult., at Brighton, Dr. J. J. Barton, formerly of Hall-place, Bexley, aged 61.

On the 30th ult., John Taggart, M.D., of Antrim.

On the 1st inst., at Chester, T. L. Brittain, M.D., House-Surgeon to the General Infirmary, Chester.

On the 2nd inst., at Campbell-terrace, Bow-road, Annie Elizabeth, the wife of Dr. S. Lawrence Gill, aged 42.

To Correspondents.

We have reason to hope that the statement of our correspondent last week, that the Report of the Committee on the Naval and Military Medical Services will not recommend any concession to the army medical officers, must not be taken *au pied de la lettre*. We are informed, on the contrary, on excellent authority, that the recommendations of the Committee will satisfy reasonable expectations.

Mr. Christopher Johnson has been misinformed. The Lancet has never pronounced in favour of the use of the flesh of cattle suffering from rinderpest as human food, if well cooked. It is true that cooking destroys all deleterious properties in the meat; but the chemical and other changes which take place in the flesh interfere with its nutritious properties, and render it unfit for human food.

Mr. Arthur B. Harris, (Falmouth.)—The charge is a very fair and reasonable one.

Unity or Duality of the Syphilitic Virus.

To the Editor of The Lancet.

Sir,—Mr. James Lane, in his letter published in your journal of Jan. 20th, objects to my having interpreted against the "unicists" certain remarks he made at a late meeting of the Medical Society of London, and I hope you will allow me to say a few words in reply.

If the question of the unity or duality of the chancrous virus were strictly a theoretical one, it would perhaps be of little practical importance; but unfortunately it is not so, and the faith in one or the other theory guides the treatment from the beginning. Unicists are mostly mercurialists; their belief in the one-poison compels them to give mercury for every kind of sore. Not more than five years ago Ricord wrote: "L'agent spécifique de la vérole naissante, c'est le *mercure*." Whatever may be the chancre brought before them, they begin at once the *specific* treatment: they give mercury, first to prevent the constitutional infection, then to retard and modify the secondary symptoms, then to cure those symptoms which it proved unable to prevent; later to ensure an immunity against relapses, and finally to cure the relapses themselves whenever they recur. In the case of sores that would never have become infecting, their treatment affords very little comfort to the patients, who seldom consider themselves free from the effects of the virus, and attribute the non-appearance of secondaries to the *beneficial* effects of mercury, and therefore continue for a long time an unnecessary anti-syphilitic treatment.

The dualists believe in the existence of two distinct chancrous poisons. This is theory. Practically they recognise two different kinds of chancres—one, the soft or simple chancre, as being always a local lesion, and requiring local treatment only; the other, the indurated or syphilitic chancre, as giving rise to a constitutional infection, and requiring a constitutional treatment. They administer mercury, not as a specific or anti-syphilitic remedy, but simply as a curative agent having a beneficial action on the primary lesion; they do not continue its use with the vain hope to modify, retard, or prevent the appearance of secondaries—and I still maintain that the surgeons of Lyons have proved that most of the secondaries were neither cured nor benefited by it,—but they look to constitutional indications for their choice of remedies, instead of trusting blindly to the "specific." As the infecting chancre only occurs in the proportion of one to three compared with the soft non-infecting chancre, it is evident that three patients out of four are saved from anti-syphilitic remedies and syphilitic anxiety. Even admitting the possibility of a mistake in the diagnosis of a doubtful case, the advantage would still be in favour of the dualists; for nothing can be lost by waiting—a proof of which we find in the statistics of Prof. Boeck and the Christiania surgeons, as shown by the following figures:—Relapses during the treatment of syphilis by syphilization, 13 per 100; relapses during the non-treatment of syphilis, 26 per 100; relapses during the mercurial treatment of syphilis, 33 per 100. The duration of the last treatment is said to be only *twenty* days less than in the non-treatment, when the disease is allowed to run its own course, unchecked by medicines. Is it then to be wondered that when we look at the specific treatment of the unicists, which proves even worse than *no treatment at all*, we should turn towards the more rational views of the dualists?

Your obedient servant,
Regent-street, Jan. 24th, 1866. A. Vintras, M.D.

L.F.P.S. Glasgow must apply to the Home Secretary for a licence in the first place; but the Inspector of Anatomical Schools would give all necessary information. The office is at 13, York-buildings, Adelphi.

Medicine, (York.)—1. There is a full supply of assistants in Victoria.—2. Salaries vary.—3. It might, but it is unlikely such an engagement could be obtained without the contract lasting for some time.—4. About £180.

A Volunteer Surgeon.—In the Army Dress Regulations.

Dr. H. Osborn.—In Mr. Elliott's cases the tincture of hydrochloride of iron was tried, and failed. It failed in several other instances.

Z. E.—It is decidedly better.

Subscriber, (Waterford.)—The "bird's-eye" is most generally to be recommended.

Genuine Vaccine Lymph.

To the Editor of The Lancet.

Sir,—A letter having appeared in a contemporary of last week respecting "spurious vaccine" being circulated, and the writer thereof being the only one advertising the sale of vaccine lymph for some time (with but one exception, and that for a short time), which I presume is intended for myself, I have only to inform my professional brethren that, feeling assured matter was obtained from every source possible, believing that matter thus obtained must be of doubtful character, and further strengthened in my belief by reading a letter which appeared in *The Times*, headed "Spurious Vaccine," I felt that such injury to the noble cause advocated by our esteemed and learned Dr. Murchison for a preventive of steppe or rinderpest in cattle was an imposition. I was therefore induced to supply all who might require it with lymph which I could warrant (collected by myself) from healthy infants only.

Sir, had it not been through a desire to reply to the numerous inquiries received by me respecting the purity of my lymph, I should not have trespassed upon your valuable space.—I am, Sir, yours, &c.,

Henry R. Myers, L.F.P.S.G. & L.M.
Milton-street, Euston-square, Feb. 1866.

St. George's.—Yes, Sir B. C. Brodie, Bart., was appointed an Examiner at the College of Surgeons, as Serjeant-Surgeon to the King, in the vacancy occasioned by the resignation of Mr. William Lyan, of the Westminster Hospital. The gentlemen holding this Court appointment do not *necessarily* jump over the heads of their seniors at the present day.

One who has been Deceived may rely upon it that the deception and quackery of the job have run out by this time their full tether.

Mr. John Gray.—A great number of the circulars have been forwarded to us.

THE MANAGEMENT OF THE NEW SYDENHAM SOCIETY.

To the Editor of THE LANCET.

SIR,—The letter which appears in your impression of Jan. 27th demands some answer from myself. Whilst thanking its writer for the courteous terms in which it is expressed, I could wish that he had been rather more explicit, as it is exceedingly difficult to reply to vague statements.

The New Sydenham Society has published twenty-two printed volumes and five fasciculi of its Atlas in seven years. Only two of its works have been reprints from English, and most of the others have been expensive translations more or less freely illustrated. I believe that it can compare to great advantage as regards the quantity given in return for the subscription with any other Society on a similar basis. As to the quality it is not for me to speak. As regards punctuality of issue, we have always given the books for the year either within or close to the year to which they belonged. We have endeavoured to bring the several volumes for each year out at as regular intervals as practicable; but those who have had experience of translators and printers will know well that it is not always possible to calculate exactly when a given book will be ready. It has never been thought worth while to keep a book back after it was ready, and when two were ready together, or nearly so, they have appeared in company.

I am well aware that there is a wide-spread feeling that the Society has scarcely realized the expectations which were formed from its first two years. We had five books for our guinea in 1859, and we have never since had more than four, and twice only three. The fact is that we gave too much the first year, more than could be permanently afforded. Our members had rapidly reached a very high number; but, what was more to the point, everyone on sending his name had paid his subscription. In after years we had painfully to collect the subscriptions, and a large number of members regularly took credit, to the great disadvantage of our exchequer. Then, in order to secure new members, we were obliged in subsequent years twice to reprint the volumes first issued, and it was long before the expense of doing so was reimbursed. I must explain, however, that the idea that we have had less for our money of late is to a very considerable extent an illusion. It is not fair merely to count volumes. The five volumes issued in the first year were small and inexpensive; those published subsequently have, many of them, been much larger and more costly. In our second year the Council undertook, at the clearly expressed wish of the members, two annual publications, each of them very costly, and together excluding most other undertakings. I allude to the Year-book and the Atlas of Portraits of Skin Diseases. The Society had attained a great success, and we were very sanguine. Looking back, some of us would be quite prepared to admit that it would have been wiser not to have burdened our income with both these at the same time. Then came the American war, and a large and sudden diminution of income in the United States. The Council has always carefully avoided getting into debt, although I may admit that during the first two years our income was perhaps too closely spent. During those years it averaged £3400; in 1861 it reached £4000; in 1862 it was not quite £3900; in 1863 it was £3800; in 1864 it had fallen to £2600; that for 1865 I cannot yet state, but it will not be less than that of the previous year. These large sums were each year carefully spent, and nothing saved; and I must beg the reader to recollect that for every pound received we had to supply a set of books, the cost of production of which came very closely indeed to the subscription paid. During several years we paid for paper and bookbinding alone (exclusive of printing, of paper, for plates and of all editors' and artists' work) more than £1500.

Having thus referred to the chief facts of the past, we come now to the future. Guided by experience, the Council has this year retained a very large sum in hand, part of which is now bearing interest. The commencing year will probably be one of the most prolific that we have had. The Council proposes to revert somewhat to the policy of its first year, and to avoid very expensive and long-continuing works. The Year-book has been changed into a Biennial Retrospect; and I may mention, in passing, that the Council has had the good *fortune* to secure Dr. Murchison, Mr. Holmes, Mr. Windsor, Dr. Barnes, and Dr. Hilton Fagge as its editors. Arrangements have been made to push on with the Atlas of Skin Diseases, and to complete it within a few years. The works recently undertaken will none of them extend to many volumes, and they comprise Griesinger on Mental Diseases (Dr. Lockhart Robertson), Bernutz and Goupil on Diseases of Women (Dr. Meadows), Hebra on Exanthems and Diseases of the Skin (Dr. Fagge), Vogel on Diseases of the Kidney, and others the arrangements respecting which are not yet complete.

Your correspondent expresses the belief that I have too much on hand to be able properly to attend to the Society's affairs, and in this opinion I quite agree with him, and have repeatedly expressed my wish to relinquish the duties of the post I hold. He is, however, probably not aware that of the more onerous part of these the Council did kindly relieve me two years ago. Our agent, Mr. H. K. Lewis, now takes charge in a most efficient manner of all that relates to the collecting of the Society's income and the distribution of books. The care of the Society's finance in larger matters is most energetically superintended by our excellent Treasurer, Dr. Sedgwick Saunders, and the share of work now left to me is but light.

Before concluding, I may just advert to the fact that the Council has made special arrangements for the convenience of new members who may join with the current year. It may indeed in some sense be considered that we commence this year a new issue. In the United States we are regaining our members, and having regard partly to our altered arrangements as respects the Year-book and other matters, I confidently anticipate for our Society an increase of prosperity and usefulness.—I am, Sir, yours, &c.,

THE SECRETARY TO THE NEW SYDENHAM SOCIETY.

Finsbury-circus, Jan. 31st, 1866.

P.S.—Your correspondent states that the Secretary receives "a liberal salary." As that expression is capable of different interpretations, I think it due to myself to state that the only honorarium of any kind which I receive is fifty guineas a year, and to add that six months ago I requested the permission of the Council to relinquish that, and to act as an honorary officer. This request I shall again press at our next meeting.

PAYMENT OF POOR-LAW EXTRAS.

Mr. John Drury, Poor-law medical officer of the Stanmore district of the Hendon Union, has forwarded to us an abstract of three cases in which the guardians of the union refused payment as extras, and which refusal was sanctioned by the Poor-law Board merely on legal technical grounds; for in equity and the spirit of the Poor-law regulations respecting extras, Mr. Drury was clearly entitled to payment:—

"1. Edward Heath (Great Stanmore), a permanent pauper, had his thumb smashed by the wheel of an omnibus at Kilburn; was taken to the nearest practitioner, who amputated it, and next day an order was obtained from the relieving officer for me to attend him. Payment refused.

"2. Thomas Carrington (Stanmore); fractured tibia; was set by Mr. Irving, of Stanmore, who has frequently acted as my deputy in cases of emergency, his assistant receiving at my hands £5 in consideration thereof. An order was obtained in a few days. I took charge of the case until cured. Payment was refused for this case also.

"3. Mrs. Clark (Stanmore); a case of difficult and dangerous labour. Double the usual payment was allowed, which amounted to £1. I consider I was entitled to £2. Refused payment."

Agitator must wait patiently until the meeting of the General Medical Council, of which the date is unfortunately not yet fixed.

Cutis.—The first named in the plains of Lombardy; the second in Norway and Sweden.

CAUSE OF SPINAL ROTATION.

To the Editor of THE LANCET.

SIR,—Although in the admirable paper on "Lateral Curvature of the Spine," read by Mr. Barwell at the Medico-Chirurgical Society, it is stated that "the column is constantly bending laterally and rotating," and one of the subsequent speakers who took part in the discussion avowed his belief that the spine is incapable of undergoing lateral curvature without rotation, yet no explanation was given as to why this duplex condition exists or how it arises.

If not intruding on your valuable space, I would venture to ask permission to suggest a simple experiment by which, without entering into mechanical formulæ, the proposition that rotation always occurs synchronously with lateral deflection may be clearly demonstrated. It is well known to every surgeon that the normal spine has several curves in its antero-posterior plane. By referring to a diagram in the "Encyclopédie Anatomique" (1843), it will be found that one curve occurs anteriorly, and comprises the seven cervical and a part of the first dorsal; another takes place posteriorly, and embraces ten of the dorsal vertebræ; whilst the third involves the remaining dorsal, the whole of the lumbar, and has an anterior direction. There is likewise a sacro-coccygeal curve corresponding in direction with the dorsal prominence. The extent and position of these are simply stated as a guide for the proposed experiment. Granting that they exist, it should follow that upon any attempt being made to flex a column laterally which already possesses antero-posterior curves, gyration or twisting upon its vertical axis must ensue. To prove this, take a piece of thick wire, and bend it in a manner calculated to represent the natural form of the spine; then seek to make it yield in a purely lateral plane, when the result will be the construction of a helix or spiral twist. It is exactly this effect which occurs to the spine during the formation of lateral curvature, and it is only by adopting such mechanism as shall reverse this rotation that lateral curvature can be successfully dealt with.

Though unwilling longer to occupy your space, I beg permission to state, as the result of large practical experience, that, whilst perfectly admitting the incurability of lateral curvature when rotation of the transverse processes has been long established, yet with a properly constructed spinal apparatus very great amelioration may be obtained, which is of itself sufficient ground for urging the mechanical treatment of such cases not being neglected or postponed.

I may also add that I have personally adopted the plan of elastic force for upwards of ten years, and found in a large number of average cases the greatest success attend its employment.—Your obedient servant,

Wimpole-street, February, 1866. HENRY HEATHER BIGG.

Mr. Charles Landour.—No such prize, we believe, has been offered in this country. The French discoverer might, however, fairly apply for the Bréant prize of the Academy before turning his attention to the prospect of English recompence for his alleged discovery.

A. B.—1. He can recover for medical attendance.—2. Yes.—3. Five shillings to seven and sixpence.

Expectans.—It is understood that the Committee have already agreed on their Report.

THE GRIFFIN TESTIMONIAL FUND.

To the Editor of THE LANCET.

SIR,—The following subscription has been further received on behalf of the above Fund:—

Dr. J. Birkbeck Nevins, Liverpool	... ...	£0	10 6
Amount previously announced	... ...	132	9 3
Received at THE LANCET Office	... ...	9	9 0

Yours obediently,

ROBERT FOWLER, M.D.,
Treasurer and Hon. Sec.

145, Bishopsgate-street Without, Feb. 6th, 1866.

A Union Officer.—Theory may assert so; but experience will bear out the statement that bed-sores may occur under the best medical treatment and most careful nursing.

Juvenis.—1. Generally at the end of the third week in March.—2. The first week in May.—3. Edinburgh, considering the purpose in view.

WE are compelled at the last moment to postpone *Dr. Mackenna's* letter until next week.

PHTHISIS.

To the Editor of THE LANCET.

SIR,—Can any of your correspondents kindly inform me where I can see the article written several years ago (I think in one of the quarterly periodicals) on the beneficial effects to consumptive patients by living in the small houses on the west coast of Scotland, and by inhaling the fumes from the burning peat day and night, &c.? Yours respectfully,

Wakefield, February 6th, 1866. S. HOLDSWORTH, M.D.

Rupture.—In addition to the examples mentioned by our correspondent, we may mention that Louisa, Queen of Denmark, daughter of our second George, died in the flower of her age (twenty-six), "a terrible death," as Walpole called it, of an operation for hernia. The operation lasted one hour. Her mother, Caroline, died after an unsuccessful operation by Ranby, "the blockhead," as she called him, adding during the operation that she "dared to say he was half sorry it was not his wife he was thus cutting about." It is also said that Caroline of Brunswick, wife of George IV., died of strangulated umbilical hernia. Consult Doran's and Strickland's "Lives of the Queens of England."

A. L.—The use of hypodermic injections of narcotic agents should be practised with caution.

Mr. E. Spooner.—We do not insert communications of the kind forwarded.

PROTOXIDE OF NITROGEN IN CHOLERA.

To the Editor of THE LANCET.

SIR,—In your impression of January 27th, I observe a letter from Mr. J. C. Cooper, suggesting the inhalation of protoxide of nitrogen or of pure oxygen during the algide stage of cholera, which is apparently written with the idea that such remedy has not been tried.

When cholera appeared in Southampton, and numbered among its victims my cousin, the able Officer of Health, Mr. Francis Cooper, I was anxious, not having seen a case of the disease, to be prepared as to the line of treatment I should adopt were it to break out suddenly in this town, and regretted to find that the most successful modes of treatment were so often unavailing.

From a consideration of the state of the blood during the algide symptoms, I concluded that oxygen and ammonia were indicated as the most appropriate stimulants. I thought the inhalation of oxygen would, while it acted as a powerful stimulant, be effecting the much-desired depuration of the blood; that ammonia would add to its stimulating effects its asserted property of causing the fluidity of the blood. On account of the latter property, ammonia was afterwards suggested in your columns by Dr. Willis, of Monmouth. But as Herr Kühne, of Berlin, and Dr. A. Gamgee, of Edinburgh, have found that free ammonia is not present in undecomposed blood, we must look for a further cause of its fluidity. Yet if ammonia have not the property attributed to it by Dr. Richardson, it probably is a better stimulus in cholera than alcoholic liquors, which would increase the impurity of the already much-changed blood.

But to return to Mr. Cooper's suggestion of the inhalation of oxygen. When, talking the various modes of treatment of cholera over with some of my seniors, I suggested the inhalation of oxygen, Dr. Nathans told me that it had been tried; and as there is no mention of it in the works of Drs. Aitken, Watson, Wood, and W. T. Gairdner, I thought it had proved of no value. However, I afterwards noticed that Drs. Guy and Tanner record it in their enumeration of remedies. If the experiments were at all satisfactory, perhaps Dr. Guy or Dr. Tanner would relate the result in your journal for the enlightenment of Mr. Cooper, myself, and probably many others who may have thought they had discovered a remedy for the algide period of cholera.

I am, Sir, yours respectfully,

Sunderland, Jan. 30th, 1866. MORDEY DOUGLAS, M.R.C.S.

F. H.—There will be no Hunterian Oration on the 14th instant. It is now biennially delivered. Mr. Hilton will be the next orator.

A Medical Alumnus.—The following is the statute bearing upon the subject as relates to the University of Edinburgh:—

"The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to his having received the degree of Bachelor of Medicine, for at least two years in attendance on an hospital, or in the military or naval medical services, or in medical and surgical practice: provided always that the degree of Doctor of Medicine shall not be conferred on any person unless he be a graduate in Arts of one of the Universities of England, Scotland, or Ireland, or of such other Universities as are above specified, or unless he shall, before or at the time of his obtaining the degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory examination in Greek and in Logic or Moral Philosophy, and in one at least of the following subjects—namely, French, German, Higher Mathematics, and Natural Philosophy."

Civis.—It is understood that the Commissioners have determined upon their report, and that it will be published shortly.

VEGETABLE PARASITES.

To the Editor of THE LANCET.

SIR,—Mr. Hogg runs away from the important point. The opinions in my paper of 1859 were totally opposed to those he wrote in 1858, identical with those of his in 1865; also I could not have written in 1859 what appeared in Dr. Aitken's book published in 1863. Why did Mr. Hogg omit my name from the list of observers quoted from Dr. Aitken's work? I am glad I was correct about my second point: that to Mr. Druce, and not Mr. Hogg, the experiments on fermentation are due.

Your space is valuable. I will therefore, if need be, meet Mr. Hogg on his own ground, the *Microscopical Journal*, if its Editor will allow me.

I am, Sir, your obedient servant,

Sackville-street, Piccadilly, Feb. 1866. TILBURY FOX.

Medicus.—The first part of the examination takes place Feb. 6th, 1866, April 3rd, June 5th, July 3rd, Oct. 2nd, and Dec. 4th. Second part: Feb. 13th, April 10th, June 12th, July 10th, Oct. 9th, and Dec. 11th. The fee for the first series is five guineas; for the second, ten guineas.

VACCINATION.

To the Editor of THE LANCET.

SIR,—The protecting agent hitherto employed has been vaccine lymph. Now that the matter is being inquired into, would it be well to try variolous matter procured from the Small-pox Hospital? Try it instead of the "diluted" material called vaccine lymph. Has any experiment been tried with the more powerful and pure variola?—Your obedient servant,

Helston, Feb. 3rd, 1866. J. WEARNE, M.R.C.S.

*** It would be well also to inoculate cows with the large-pox as a preventive measure.

A Traveller.—Arsenic, sulphate of zinc, willow-bark, salicine, berberine, piperine, &c., have all been, and some still are, employed in the treatment of intermittent fever when circumstances hinder recourse being had to cinchona or quinine.

X. Y. Z.—1. If he be quite unqualified, he might be proceeded against under the Apothecaries Act.—2. Yes.

J. B. F.—There is no modern work on the subject.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Copland; Dr. Brown-Séquard; Dr. Tilbury Fox; Dr. Markham; Dr. Crisp; Mr. Bishop; Mr. Wheatcroft; Dr. Stratford; Mr. Atkinson; Mr. Arnold, Blackburn; Mr. Prowse, Amersham; Mr. Shepheard; Mr. Boden; Mr. Appleby; Dr. Holdsworth, Wakefield; Dr. Stewart; Mr. Douglas; Mr. J. Ashburner; Mr. Tomlinson, Ilkley; Dr. Barker, Worthing; Mr. Murphy; Mr. Burch; Mr. Sproston, Barton; Dr. Tuxford, Boston; Dr. Whitmore; Mr. Horne; Mr. Davies; Mr. Bonnor, Minehead; Mr. Myers; Dr. Keeling, Sheffield; Mr. Lawrence; Mr. Robertson; Dr. Fothergill; Dr. Albany, Manchester; Mr. Taylor; Mr. Wilson; Dr. Ramadge; Mr. Landour; Mr. Kesteven; Dr. Milne, Edinburgh; Mr. Griffith; Mr. Knight, Brill; Dr. Bird, Liverpool; Mr. Landton; Dr. O'Reilly; Mr. Richards; Mr. Kavanagh, Dungarvan; Mr. C. Johnson; Mr. Rees; Dr. Griffin, Banbury; Dr. Mackesy; Mr. Coates; Dr. Harmer; Rev. F. B. Harvey; Mr. Gray, Colinton; Mr. Turner, Alfreton; Mr. Mathews; Mr. Benham; Mr. R. Brown; Dr. Palmer; Dr. Eastlake; Mr. J. Clarke; Dr. Eames, Plymouth; Mr. Curgenven, Derby; Dr. Allison; Expectans; W. T. C.; Fiat Justitia; Z. Z.; Alpha; A. B. H.; Medicus; X. Y. Z.; Microscopical Society; A Constant Reader; M.D.; An Assistant-Surgeon; A Physician; The Writer; J. H.; Gamma; P. T.; B. S.; F. C. S., Paris; A Retired Army Surgeon; Iota; W. L.; &c.

Medical Diary of the Week.

Monday, Feb. 12.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 2 A.M. and 1½ P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Huxley, "On the Classification and Structure of the Mammalia."

Tuesday, Feb. 13.

GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Heat."
ETHNOLOGICAL SOCIETY OF LONDON.—8 P.M. Mr. Crawfurd, "On the Physical and Mental Characteristics of the European and Asiatic Races of Man."—Mr. T. Valentine Robins: "Notes and Sketches on the Niger."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot.—8½ P.M. Mr. Henry Thompson, "On a Case of Phosphatic Calculus, with Nucleus of Bone."—Mr. Joseph Allen, "On a Case of Lithotomy: Mulberry Calculus."

Wednesday, Feb. 14.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Huxley, "On the Classification and Structure of the Mammalia."
MICROSCOPICAL SOCIETY.—8 P.M. Anniversary Meeting.

Thursday, Feb. 15.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
LONDON SURGICAL HOME.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Heat."
HARVEIAN SOCIETY OF LONDON.—8½ P.M. Dr. Camps, "On Railway and other Accidents attended with Violence: their Effects on the Nervous System."

Friday, Feb. 16.

WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Huxley, "On the Classification and Structure of the Mammalia."
ROYAL INSTITUTION.—3 P.M. Col. Sir H. James, "On the Ordnance Survey of Jerusalem."

Saturday, Feb. 17.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Westmacott, "On Art Education, and how Works of Art should be Viewed."
METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—7½ P.M.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page.....	£3	12	0
For every additional line.....	0	0	6	For a page.....	5	0	0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.